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QUEENSLAND.



ANNUAL REPORT

OF

THE COMMISSIONER OF PUBLIC HEALTH

TO

30TH JUNE, 1933.

PRESENTED TO PARLIAMENT BY COMMAND.

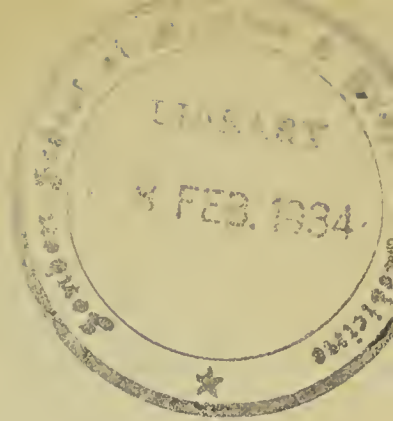
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L REPORT OF THE COMMISSIONER OF PUBLIC HEALTH, 1932-1933.

TO THE ASSISTANT UNDER SECRETARY, HOME SECRETARY'S DEPARTMENT.

SIR,—I have the honour to submit for the Minister's information the following particulars regarding the work carried out by this Department during the twelve months ended the 30th June, 1933, as well as my comments regarding Public Health administration for the State of Queensland.

The following vital statistical information is furnished to show the fluctuations in the rates of this State for the preceding year as compared with the one under review, and the analysis of the various rates in other countries of white races:—

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.	Year.	Birth Rate.
Queensland	1931	18.62	1932	17.89
New South Wales	1931	19.02	1932	17.75
Victoria	1931	16.88	1932	15.21
South Australia	1931	15.56	1932	14.54
Western Australia	1931	20.32	1932	18.85
Tasmania	1931	21.65	1932	20.25
Commonwealth	1931	18.23	1932	16.94
New Zealand	1931	18.42	1932	14.85
England and Wales	1931	15.8	1932	Not available
Scotland	1931	19.0	1932	Not available
Irish Free State	1931	19.3	1932	Not available
Canada	1930	23.9	1932	Not available

DEATH RATE.

Country.	Year.	Death Rate.	Year.	Death Rate.
Queensland	1931	7.86	1932	8.05
New South Wales	1931	8.48	1932	8.44
Victoria	1931	9.48	1932	9.30
South Australia	1931	8.38	1932	8.46
Western Australia	1931	8.75	1932	8.80
Tasmania	1931	9.35	1932	9.12
New Zealand	1931	8.34	1932	8.39
England and Wales	1931	12.3	1932	Not available
Scotland	1931	13.3	1932	Not available
Irish Free State	1931	14.5	1932	Not available
Canada	1931	10.7	1932	Not available

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Death Rate per 1,000 Births.	Year.	Death Rate per 1,000 Births.
Queensland	1931	36.56	1932	41.03
New South Wales	1931	43.48	1932	40.25
Victoria	1931	44.47	1932	43.00
South Australia	1931	36.35	1932	36.73
Western Australia	1931	41.35	1932	44.57
Tasmania	1931	45.99	1932	40.53
New Zealand	1931	32.2	1932	33.7
England and Wales	1931	66.0	1932	Not available
Scotland	1931	82.0	1932	Not available
Irish Free State	1931	68.0	1932	Not available
Canada	1931	89.0	1932	Not available

COMMUNICABLE DISEASES.

The monthly incidence of infectious diseases throughout the State is shown in the following tables.

In addition, tables for the calendar year 1932 are furnished as hereunder.

COMMUNICABLE DISEASES (EXCLUSIVE OF VENEREAL DISEASES)—1ST JULY, 1932, TO 30TH JUNE, 1933.
(METROPOLITAN AREA).

Diseases.	MONTHS.												Totals.	
	1932.						1933.							
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	1932-33.	1931-32.
Anchylostomiasis .. ..	..	..	..	..	..	..	39	48	69	..	2	..	158	..
Acute Anterior Poliomyelitis ..	1	..	1	..	3	..	..	..	..	..	..	..	5	131
Anthrax .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cerebro-Spinal Meningitis (epidemic)	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Cholera, Asiatic .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	73	89	47	82	98	117	65	75	80	89	78	64	957	642
Dysentery, Amoebic .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery, Bacillary .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargica .. ..	..	1	..	..	1	..	..	..	..	..	..	..	2	2
Filariasis .. ..	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Leprosy .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Malaria .. ..	..	..	..	..	1	..	..	..	..	..	..	..	1	4
Plague (Bubonic or Oriental) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	2	1	..	1	1	..	1	1	..	1	..	..	8	7
Puerperal Pyrexia .. ..	..	..	..	..	..	..	..	..	1	..	..	..	1	12
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	14	23	20	23	13	12	9	6	10	11	13	14	168	210
Smallpox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever (includes Para-typhoid)	3	2	1	..	3	4	1	4	..	..	..	1	19	24
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis (all forms)	8	12	9	4	5	7	8	12	10	6	6	9	96	121
Yellow Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	101	128	78	110	125	141	123	146	170	107	99	88	1,416	..
1931-32 Totals	131	94	89	83	78	132	157	108	52	61	78	95	1,158	..

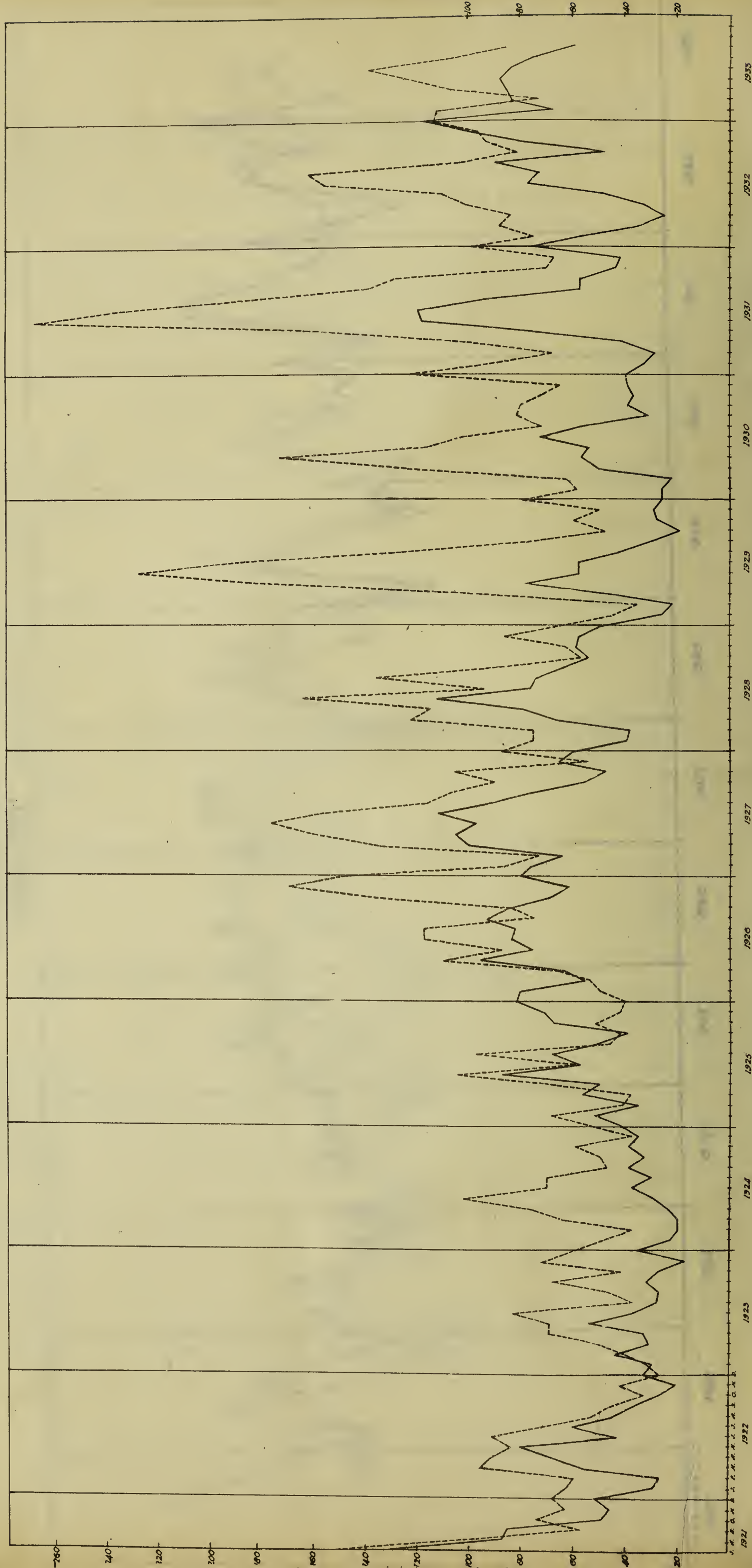
(OUTSIDE AREAS).

Diseases.	MONTHS.												Totals.	
	1932.						1933.							
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	1932-33.	1931-32.
Anchylostomiasis .. ..	..	..	2	..	..	27	..	..	5	1	..	..	35	4
Acute Anterior Poliomyelitis ..	6	2	..	2	..	..	1	..	3	..	1	..	15	181
Anthrax .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease .. ..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Cerebro-Spinal Meningitis (epidemic)	..	1	3	..	..	..	..	..	..	..	..	..	4	8
Cholera, Asiatic .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	159	103	81	93	95	113	112	74	107	124	138	103	1,302	1,296
Dysentery, Amoebic .. ..	..	..	..	2	..	..	..	..	..	..	..	..	2	1
Dysentery, Bacillary .. ..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Encephalitis Lethargica	1	..	..	..	..	..	..	..	..	..	..	..	1	..
Filariasis .. ..	..	..	5	..	..	..	..	..	..	2	..	..	7	..
Leprosy .. ..	..	..	2	..	..	1	..	1	1	..	2	..	7	14
Malaria	1	3	..	..	..	..	..	..	..	2	..	..	6	3
Plague (Bubonic or Oriental) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	2	1	1	2	3	..	2	2	1	1	16	15
Puerperal Pyrexia .. ..	..	1	1	1	..	..	..	..	..	2	1	1	7	9
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	44	47	35	33	31	38	35	34	41	40	31	28	437	310
Smallpox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever (includes Para-typhoid)	2	6	3	9	9	4	4	14	13	12	4	3	83	77
Typhus Fever.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis (all forms)	4	25	11	12	9	5	8	6	22	9	3	4	118	142
Yellow Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	218	188	145	153	145	190	163	129	196	194	181	140	2,042	..
1931-32 Totals	260	185	190	112	100	149	125	198	174	176	179	214	2,062	..

DIPHTHERIA - MONTHLY NUMBER OF CASES.

METROPOLITAN, —

COUNTRY, ----



ANNUAL STATEMENT OF NOTIFIABLE DISEASES DURING CALENDAR YEAR 1932 (METROPOLITAN AREA).

Diseases.	MONTHS.												Total.
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Anchylostomiasis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease .. .. .	..	..	1	..	..	..	..	..	..	..	..	..	1
Cerebro-Spinal Meningitis .. .. .	..	..	..	1	..	..	..	..	..	..	..	..	1
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	56	35	25	33	48	77	73	89	47	82	98	117	780
Dysentery .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis	1	..	..	..	..	..	..	1	..	..	1	..	3
Filariasis .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	1
Leprosy .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	2	..	..	2	..	..	..	..	..	..	1	..	5
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Polio-myelitis Anterior	56	42	2	..	..	..	1	..	1	..	3	..	105
Puerperal Fever	6	4	..	1	2	..	2	1	..	1	1	..	18
Relapsing Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	20	16	17	5	16	13	14	23	20	23	13	12	192
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis (all forms)	13	7	7	19	11	5	8	12	9	4	5	7	107
Typhoid Fever	3	4	..	..	1	..	3	2	1	..	3	4	21
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellow Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	157	108	52	61	78	95	101	128	78	110	125	141	1,234
1931 Totals	69	59	79	123	169	159	131	94	89	83	78	132	1,265

ANNUAL STATEMENT OF NOTIFIABLE DISEASES DURING CALENDAR YEAR 1932 (OUTSIDE AREAS).

Diseases.	MONTHS.												Total
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Anchylostomiasis .. .. .	..	..	..	2	1	..	..	..	2	..	..	27	32
Bilharziasis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease .. .. .	..	..	..	..	..	1	..	..	..	..	..	..	1
Cerebro-Spinal Meningitis .. .. .	..	..	2	1	..	1	..	1	3	..	..	..	8
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	75	87	84	100	110	155	159	103	81	93	95	113	1,255
Dysentery .. .. .	..	..	1	..	..	..	..	..	..	2	..	..	3
Encephalitis .. .. .	..	..	..	..	..	..	1	..	..	..	..	..	1
Filariasis .. .. .	..	..	..	..	..	..	..	..	5	..	..	..	5
Leprosy .. .. .	..	..	1	2	..	2	..	..	2	..	..	1	8
Malaria .. .. .	..	..	..	..	..	1	1	3	..	..	..	..	5
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Polio-myelitis Anterior	33	55	40	19	14	6	6	2	..	2	..	..	177
Puerperal Fever	4	2	2	4	2	1	1	1	3	2	1	2	25
Relapsing Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	13	16	18	24	26	29	44	47	35	33	31	38	354
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis (all forms) .. .. .	..	11	14	16	16	14	4	25	11	12	9	5	137
Typhoid Fever .. .. .	..	25	9	8	3	5	2	6	3	9	9	4	83
Typhus Fever (endemic) .. .. .	..	..	..	..	1	..	..	..	..	..	..	..	1
Yellow Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	125	196	171	176	173	215	218	188	145	153	145	190	2,095
1931 Totals	191	135	192	231	346	295	260	185	190	112	100	149	2,386

DIPHTHERIA.

It is with feelings of considerable gratification I find that the confidence in immunisation which I expressed in my last Annual Report has been in no way misplaced, as the trend of diphtheria has shown considerable modification up to the time of writing this report. The peak of incidence, which is generally reached in May or June, and this year occurred in May, has never been so low since 1925. This must be taken as being significant of the influence which immunisation is beginning to exert on the incidence of diphtheria. I append several graphs depicting diphtheria in the State and the metropolitan areas, a study of which will demonstrate the soundness of my belief.

1. It is noticed in Graph 1 that since 1925 the long time or secular trend of the disease has shown a tendency to increase in magnitude. This appears to be due to the gradual increase in population, as Graph 2, which is calculated on the increasing population, tends to show the trend as nearly stationary, when calculated as a rate.

2. The seasonal cycle is fairly constant, the greatest number of cases occurring around the month of May and June, with a subsidiary peak in December.

3. The epidemic cycle would tend to run in waves of five to six years, with alternate years of increase and decrease in epidemicity. Thus, if the disease had run its natural epidemic course, the peak for 1933 should have been considerably higher than that for 1932. As immunisation has been actively employed in certain districts and towns outside Brisbane, it is reasonable to attribute the fall to this influence, and this is borne out by a careful analysis and comparison of towns and shires in the State. These have been divided into two classes—the immunised and the unimmunised.

Those districts in which 25 per cent. or more of the children have been immunised are designated as belonging to the former class. Fifty-five thousand children were immunised by the end of June, which represents 25 per cent., approximately, of the children of the State, excluding the metropolis.

On a computation, this would show that in immunised districts, as a whole, two-thirds of the children have been immunised, and, on making a comparison of the first six months of 1932 and 1933, it is seen that in these districts the returns of notifications have been less, whereas in the unimmunised districts they have been greater.

In analysing a representative number of several towns for the last three calendar years, the influence of immunisation is again clearly demonstrated. The two towns of Maryborough and Bundaberg are, to all intents and purposes, very similar. Maryborough, however, had immunised 50 per cent. of her young population; whereas, in Bundaberg, although the Medical Officer of Health and health inspector are very active in promoting immunisation, a very small percentage of the children have been immunised. (It is gratifying to note in passing that the municipal clinic has been established in this town and is working to the best of its ability.) The following are the numbers of cases:—

—	1930.	1931.	1932.
Maryborough	75	13	9
Bundaberg	34	97	47

Psychologically, the position around Bundaberg is interesting, as in the surrounding shires a most vigorous campaign has been waged with a very high degree of success; for example, Gayndah, Isis, Degilbo, and Eidsvold have immunised over 70 per cent. of the children in their areas, and not one of them has had a case of diphtheria in the first six months of 1933.

One shire should especially be mentioned—viz., Burrum, as over 90 per cent. of the children have been immunised. On the other hand, the following towns are representative of the unimmunised group:—

—	1930.	1931.	1932.	From 1-1-33 to 30-6-33.
Ayr	12	17	15	9
Cairns City ..	9	11	39	31
Ipswich	45	51	86	58
Brisbane	524	783	780	451

The position in Brisbane has not been satisfactory, as up to the end of 1932 less than 1 per cent. of the children had been immunised. I am glad to note, however, that the Brisbane City Council has given the matter more consideration since my last Annual Report, and that greater facilities are being offered by the establishment of clinics at Sandgate, Wynnum, and South Brisbane, as well as Brisbane. If these are to prove a success, however, much more publicity and enthusiasm must be shown.

From a statistical point of view the metropolitan position has proved of value when comparing it with that of the country. It is noticed in the graphs that there has been a tendency for the ratio of cases in the country to those of Brisbane to have been as two to one. This, no doubt, is due to the population being in the

same ratio—640,000 to 334,000, approximately. This is also shown when the incidence in each case is calculated as a rate and plotted on logarithmic paper. The two lines more or less coincide until the end of 1932, when the country rate becomes much lower than that of the city.

The comparison becomes very marked in the first six months of 1933, as during that period 451 cases occurred in Brisbane (274 for corresponding period, 1932), whereas only 660 occurred in the country (the majority of which are in unimmunised areas) instead of 900 if the two to one ration had not been upset. Thus, in Brisbane we find a rise of 64.6 per cent. in the number of cases. A review of the Health Inspectors' reports definitely adds greater confirmation to the point of view that immunisation is proving of value.

The Health Inspector of the Shires of Jondaryan, Rosalie, Crow's Nest, Highfields, and Drayton reports:—"One thing stands out above others, and this is the splendid decrease in the number of cases of infectious diseases In my opinion the protection of children against diphtheria by immunisation is mostly responsible for the fact that we have only 46 cases this year against 80 last year."

The Health Inspector, Gayndah:—"I am pleased at your decision to carry on with immunisation against diphtheria for all children up to the age of twelve years. This operation has proved conclusively to be a great insurance against the disease—in fact, no single case has been notified in the Shire of Gayndah this year": nor has there been any for the first six months of 1933.

Reports have also been received by the Department that many mothers in the country have voluntarily remarked that their children have been in better health since receiving immunisation. The following is a copy of the Department's latest circular letter to Medical Officers of Health:—

"In many areas of the State immunisation against diphtheria has been promoted with considerable activity and success, and large numbers of children have been immunised. In fact, even at this early date very favourable comparisons can be made between districts where immunisation has been promoted and districts where no action has been taken.

"It is now recommended to the medical profession that the outlook on the control of diphtheria in these immunised areas should be somewhat modified.

"1. Where a minimum of 50 per cent. of the children have been immunised, the necessity for the rigid isolation of children (cases, contacts, suspects, and carriers) in infectious diseases hospitals is not so important as in an immunised area, and Medical Officers of Health may give a wider interpretation to home isolation than was formerly the case. Especially is this so in dealing with carriers or suspects.

"2. Every reliance should be placed on the efficacy of immunisation when deciding on the differential diagnosis of an inflamed throat.

"3. It should be noted that it is possible for an immunised child to be a carrier and at the same time to display signs of an inflamed throat without actually suffering from diphtheria.

"4. It is important to remember that there are two kinds of carriers—virulent and avirulent, the latter type displaying organisms morphologically akin to C. Diphtheria, but which, on account of their avirulence, are of no significance.

"5. More use should be made of home isolation, where possible, in case of carriers until the results of virulence tests are known. By such means a considerable expense will be saved to the Local Authority concerned."

While the Schick test is no longer used for children up to the age of seven or eight years, as the majority are all Schick positive, it has been retained for use in eliminating a certain proportion of Anatoxin sensitive children—viz., the Schick negatives, who do not require to undergo the prolonged technique necessary in this class so as to obtain immunity.

The Schick test is also of value in differentiating carriers. We have found that Schick positive carriers must be carriers of avirulent germs, otherwise they would contract the disease. By this means a quick method of differentiating carriers is obtained with the result that the burden of isolation expenses to Local Authorities is lightened.

In reading the Anatoxin test, it is interesting to note that it has been found more reliable to read it by touch than by sight, as the presence of a small nodule the size of a split pea denotes a positive test, whereas many children who have shown a small area of erythema but not a nodule have been immunised without any reaction whatsoever. In connection with this test it has been noticed that older children are more liable to give a positive result than younger children, who invariably, up to the age of seven years, give a negative reaction. Therefore as a routine measure this test can be safely left out in all children, with few exception (e.g., asthmatics) up to seven or eight years of age. By this means the necessary attendances are considerably simplified for country people coming from a distance.

There is no doubt the success of the campaign rests in the hands of each Local Authority respectively. The central department can only stimulate, rouse enthusiasm, and show the way.

The costs of immunisation are small when compared with the cost of treating diphtheria. In Queensland 5s. per head is paid to the doctor for the course of the treatment; another 1s. covers the cost of the Anatoxin and incidentals necessary.

On this basis 333 children can be successfully immunised for the cost of treating ten cases of diphtheria. Added to this, we must evaluate the expenses we will save in isolation and treatment of carriers, upkeep of diphtheria wards, and all the paraphernalia associated with the treatment of the disease.

The legal and social aspect of the disease will be lightened, as with even a 50 per cent. immunised child population the need for strict isolation of carriers in hospitals is not so essential as hitherto, and in time must disappear. The advantages in school life alone are inestimable, but the saving in human life and suffering can never be calculated.

TYPHOID FEVER.

As is shown by the notifications, there is an increase in the incidence of typhoid fever this year. This has to some extent been due to an increase in cases occurring in railway construction camps. In these locations it is unfortunate that the workers do not realise that there is a greater necessity than under more settled conditions for attention to personal hygiene, clean food handling, and to personal care in the use of sanitary conveniences. Especially is this so as the primitive conditions existing favour the spread of the disease once it has been introduced by a carrier. In all outbreaks coming under the Department's notice typhoid fever has been demonstrated to have been disseminated by close contact with carriers.

HOOKWORM DISEASE.

The work in connection with the Hookworm Campaign, the expense of which was previously partially borne by the Commonwealth Health Service, was on the 1st July, 1932, handed over to this Department assisted by the nurses attached to the Department of Public Instruction.

Dr. Cilento, Chief Quarantine Officer (General), Brisbane, still continues as Chairman of the controlling Board, consisting of the Commissioner of Public Health, the Chief Medical Officer of the Department of Public Instruction, and the Chief Protector of Aborigines.

The following particulars have been furnished by the Chairman of the Queensland Committee:—"Activities with regard to hookworm disease have been restricted to certain meetings of the Queensland Committee of Hookworm control, and, arising from these, certain attempts to revise the constitution of the hookworm units at present operating, through the mediation of the Public Service Commissioner for Queensland (J. D. Story, Esquire)."

It was found that the transfer of the School Nurses engaged on hookworm work (who regarded themselves as permanent School Nurses of the Department of Public Instruction) to the Department of Public Health (where they continued their appointments of precarious tenure) resulted in a loss of morale, which was evidenced by the resignation of several. In so small a service (four nurses in charge, resident in endemic hookworm areas), this represented an extremely heavy blow to the efficiency of the campaign. This was evidenced by a failure to control the disease in the Cairns area and the Innisfail area, while in the Ingham area it progressed to some extent, and in the Tully area very definitely.

As a result of various representations made, it was arranged that the nurses should be transferred to the Department of Public

Instruction as from the 1st July, 1933, the other members of the Unit (two Health Inspectors of the Department of Public Health, Queensland), remaining attached to their Department as before.

All members of those routine staffs are now officials of the State of Queensland, and it is

understood that at an early date a revision of the methods of working, with a view to establishing more efficient control on a semi-permanent basis, will be instituted as a State activity.

The general work of the Hookworm Campaign during the twelve months review is shown in the following table:—

Survey.	Period Covered.	Specimens Examined.	Positive.		Treat-ments.	Privies Inspected.
			Hookworm	Other.		
Cairns Area— Resident Nurse	July, 1932, to June, 1933 ..	2,663	391	143	463	..
Innisfail Area— Resident Nurse	July, 1932, to June, 1933 ..	3,632	463	472	366	..
Sanitary Inspector	January to June, 1933 ..	..	..	..	..	656
Ingham Area— Resident Nurse	July, 1932, to June, 1933 ..	2,518	421	417..	402	..
Sanitary Inspector	July, 1932, to June, 1933 ..	..	..	..	..	602
Tully Area— Sanitary Inspector	June to December, 1932 ..	..	..	..	..	439
Totals .. .. .	..	8,813	1,275	1,032	1,231	1,697

VENEREAL DISEASES.

(Health Acts, 1900-31).

Report for the Twelve Months ending 30th June, 1933.

The term “Venereal Disease” now covers gonorrhœa, ophthalmia neonatorum (gonorrhœal), syphilis (all stages), soft chancre, ulcerative granuloma, and venereal warts.

Notifications.—During the twelve months under review 1,464 notifications were received as compared with 1,841 for 1931-32, and 1,552 for 1930-31. In recent months an attempt has been made to have the exact stage of the disease stated on the notification form in order to get

a better idea of the incidence of new infections, particularly of syphilis.

Syphilis.—Three hundred and seventy-four of these notifications were for syphilis, as compared with 628 for the previous year. Allowance should be made for the fact that last year was the first year during which all stages became notifiable.

Gonorrhœa.—One thousand one hundred and eighteen of the notifications were for gonorrhœa as compared with 1,214 for the previous year.

Other Forms of V.D.—These account for the balance of the notifications and now include gonorrhœal ophthalmia. The following table gives a dissection of the total notifications:—

Nature of Disease.	(a) Metropolitan. (b) Outside.	Total Notifications.			Duplicate Notifications.			Mean Totals.		
		Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Gonorrhœa	Metropolitan ..	594	235	1,216	57	35	148	537	200	1,070
	Outside	293	94		42	12		251	82	
Ophthalmia Neonatorum.. ..	Metropolitan ..	1	..	1	..	..	..	1	..	1
	Outside .. ..	..	..	..	..	..	..	..	..	..
Syphilis—Primary	Metropolitan ..	29	2	31	..	..	..	29	2	31
	Outside .. ..	..	..	..	..	..	..	..	..	..
Syphilis—Secondary	Metropolitan ..	15	2	34	..	..	1	15	2	33
	Outside	8	9	..	1	..	..	7	9	..
Syphilis—Tertiary	Metropolitan ..	34	40	114	1	1	2	33	39	112
	Outside	23	17		..	..		23	17	
Syphilis—Latent	Metropolitan ..	4	9	13	..	1	1	4	8	12
	Outside .. ..	..	..	..	..	..	..	..	..	..
Syphilis—Unspecified	Metropolitan ..	30	21	110	10	2	24	20	19	86
	Outside	40	19		7	5		33	14	
Heredo-Syphilis	Metropolitan ..	22	18	54	..	..	..	22	18	54
	Outside	5	9		..	..		5	9	
Neuro-Syphilis	Metropolitan ..	1	..	1	..	..	..	1	..	1
	Outside .. ..	..	..	..	..	..	..	..	..	..
Soft Chancre	Metropolitan ..	..	..	4	..	..	..	..	..	4
	Outside	4	..	..	..	..	..	4	..	..
Venereal Warts	Metropolitan ..	10	..	10	..	..	..	10	..	10
	Outside .. ..	..	..	..	..	..	..	..	..	..
Ulcerative Granuloma	Metropolitan ..	..	..	1	..	..	..	..	..	1
	Outside	1	..	..	..	..	..	1	..	..
Double Infections— Gonorrhœa and Venereal Warts	Metropolitan ..	1	1	2	..	..	..	1	1	2
	Outside .. ..	..	..	..	..	..	..	..	..	..
Gonorrhœa and Syphilis (un- specified)	Metropolitan ..	4	4	55	1	1	9	3	3	46
	Outside	32	15		6	1		26	14	
Granuloma and Syphilis ..	Metropolitan ..	..	..	1	..	..	..	..	1	1
	Outside .. ..	..	1	..	..	..	..	..	..	..
Total—Whole State	Metropolitan ..	745	332	1,647	69	40	183	676	292	1,464
	Outside	406	164		56	18		350	146	

This means that amongst 1,464 persons notified there were 1,513 cases of venereal disease.

Sources of Notification.—Of the total notifications 15·2 per cent. were from private practitioners, as compared with 27·6 per cent. last year. The actual figures are shown in the table (exclusive of duplicate notifications).

SOURCES OF NOTIFICATION.

Treatment Centre.	Metropolis.	Outside Metropolis.	Totals.
Clinics	485	148	633
Private doctors	223	188	411
Hospitals (other than Clinics)	260	160	420
Totals	968	496	1,464

Stated Sources of Infection.—It will be seen that prostitutes, even including the clandestine, form quite a small percentage of the various sources of infection; though there is still a very prevalent idea that most venereal disease is contracted from this source. The amateur of lax morals is the most fertile and frequent

source, and only a genuine effort to find the sex partners where possible, and a definite campaign of publicity and enlightenment will have any marked effect in controlling the amount of disease from this quarter. The various sources stated are shown hereunder:—

STATED SOURCES OF INFECTION.

Sources ascribed to—	AREA.		Totals.
	Metropolitan.	Outside Metropolis.	
Prostitutes in houses	31	34	63
Prostitutes unknown	91	42	133
Non-professionals	348	85	433
Husbands	24	10	34
Wives	24	6	30
Parents	17	7	24
Unknown or unstated	344	269	613
Occupational (prostitutes)	81	22	103
Gins, half-castes, &c.	2	18	20
Extra genital	6	3	9
Outside Queensland	27	8	35
Totals	968	496	1,464

Defaulters.—During the twelve months there were 366 defaulters, representing 25 per cent. of the total notifications received. This compares with 18 per cent. for the previous twelve months. Two hundred and thirty of these defaulters were traced and 224 resumed treatment. Nomadic cases visiting various centres in search of work is the explanation of the apparent increase in defaulters.

There will always be some of these cases, but they should be at a minimum in private practice, and the establishment of clean, efficient, and easily accessible clinics, and the adoption of a firm but not unsympathetic attitude by those in charge should reduce these to a minimum. It is pleasing to note that there are fewer defaulters from the Department's metropolitan clinics. Where a defaulter does not heed a warning there should be no hesitation or delay in reporting the case. Failure to do so is not only breaking the law, but is a grave dereliction of duty to society and civilisation. It is amusing, though rather tragic to hear an occasional medical man say that he does not consider that he is justified in divulging his patient's condition. A defaulter forfeits this right and one would think a doctor far less justified in adding to the number of abortions, miscarriages, and still-births, adding

to the cost of pensions for invalidity, and increasing the race of what Clarkson describes as "that pathetic collection of inefficient and half-human beings, whose existence is a commentary upon the lack of supervision and treatment to which their parents were subjected."

Clinics.

Treatment centres for venereal disease exist throughout the State in both metropolitan and country districts.

Metropolitan.—The two main clinics are Hope street (males) continuous, and William street (females)—four sessions weekly. These clinics treat mostly the acute and more infectious stages, and uncomplicated later stages. The public hospitals also treat a certain number of cases, mostly of a complicated or latent nature.

Country.—All subsidised hospitals throughout the State are required to treat venereal disease, and the larger of them have clinic facilities attached.

Male Clinic, Hope street.—Since the last report this clinic has been altered and renovated. The male clinic is virtually a continuous clinic, there being three sessions daily—early morning, midday, and evening.

Mention has been made elsewhere of the desirability of adhering, as far as possible, to a more or less uniform standard of treatment. The treatment of syphilis at the metropolitan

clinics is based on one or other of the following standard courses. Results so far seem to be much the same with either course though there is not a great deal of difference between them.

Day.	Course A.		Course B.	
	"914" (I.V. route).	Bismol 2 cc. (or equivalent).	"914" (I.V. route).	Bismol 2 cc. (or equivalent).
1st	0.45	..	0.45	2 cc.
4th	0.45	..	0.45	..
8th	0.45	..	0.45	2 cc.
15th .. .. .	..	2 cc.	0.6	2 cc.
22nd	0.6	..	0.6	2 cc.
29th	0.6	..	0.6	2 cc.
36th .. .. .	..	2 cc.	0.6	2 cc.
43rd	0.6	..	0.6	2 cc.
50th	0.6	..	0.6	2 cc.
57th .. .. .	..	2 cc.	..	2 cc.
64th	0.6	..	..	2 cc.
71st	0.6	..	..	2 cc.
78th .. .. .	..	2 cc.	..	2 cc.
85th .. .. .	..	2 cc.	Spell for two weeks Mist. Hg. et K.I. for three weeks Wassermann and repeat course	
92nd .. .. .	..	2 cc.		
99th .. .. .	..	2 cc.		
106th .. .. .	..	2 cc.	..	..
113th .. .. .	..	2 cc.	..	..
120th .. .. .	..	2 cc.	..	..
Spell for one week. K.I. gr. xx t.d.s. two weeks. Wassermann and repeat course				

As treatment progresses favourably, longer intervals may be given, during which Pil. Hydrarg. cum. Cret. can be exhibited.

In general, treatment is continued for two years after the blood becomes negative, and thereafter, observation for two more years. A word of caution may here be given against forming a too hasty opinion from the results of one or two isolated blood tests. False positives are not uncommon, even with the most careful technique in the collection of serum, and per-

formance of tests. For this reason graphic records by a quantitative Wassermann, or Vernes test, at monthly intervals has much to recommend it, in spite of the extra expense entailed. Some investigations along these lines will probably be carried out in the male clinic in the near future.

An abbreviated summary of male clinic operations with corresponding figures for the previous few years is shown in the following table:—

—								1932-33.	1931-32.	1930-31.	1929-30.	1928-29.
Consultations (Medical Officer)	..	..	..	a.m.	p.m.			5,967	4,936	4,078	3,111	3,236
								4,859	5,452	5,703	6,013	6,232
Totals ..	..	..	..	..	..			10,826	10,388	9,761	9,124	9,470
New cases ..	..	..	..	..	..			783	756	771	727	698
Notified (venereal) ..	..	..	..	..	..			440	434	445	437	373
Blood specimens for W.R. ..	..	..	..	..	..			828	731	953	667	692
Blood specimens for C.D. (Gon.) ..	..	..	..	..	..			485	457	..	..	..
Dark ground examinations ..	..	..	..	..	..			40	40	31	15	..
Smears (Gonococci) ..	..	..	..	..	..			2,315	2,423	2,488	2,070	2,166
" 914 " administered ..	..	..	..	..	..			927	912	1,306	1,455	1,206
Bismuth administered ..	..	..	..	..	..			1,297	1,464	1,582	1,427	1,453
Prescriptions dispensed ..	..	..	..	..	..			1,797	2,475	3,110	2,455	2,921
Seamen's cards issued ..	..	..	..	..	..			7	8	17	13	17
Certificate of apparent cure ..	..	..	..	..	..			231	213	221	200	219

Analysis of Cases at Male Clinic.

Of the 783 new patients at the male clinic who reported for examination during the year 440 were diagnosed as suffering from venereal disease

and notified accordingly (anonymous notification). Of these numbers 15 had previously been under treatment elsewhere for the same complaint.

SUMMARY.

Disease.								Notification ex Clinic.	Notification elsewhere.	Totals.
Acute Gonorrhœa	..	..	..	..	..	..	..	359	7	366
Sub. Acute Gonorrhœa	..	..	..	..	..	..	..	4	3	7
Chronic Gonorrhœa	..	..	..	..	..	..	..	2	..	2
Syphilis—										
Primary	..	..	..	..	..	..	..	29	5	34
Secondary	..	..	..	..	..	..	..	10	..	10
Tertiary	..	..	..	..	..	..	..	3	..	3
Latent	..	..	..	..	..	..	..	4	..	4
Neuro	..	..	..	..	..	..	..	1	..	1
Acute Gonorrhœa and Latent Syphilis	..	..	..	..	..	..	..	1	..	1
Acute Gonorrhœa and Secondary Syphilis	..	..	..	..	..	..	..	1	..	1
Gonorrhœa and Syphilis	..	..	..	..	..	..	..	1	..	1
Venereal Warts	..	..	..	..	..	..	..	10	..	10
Totals	..	..	..	..	..	..	..	425	15	440

At the end of the fiscal year under review there were 434 patients attending the clinic, as against 429 at the 30th June, 1931, and for purposes of comparison a statement covering a five-yearly period is appended.

Nature of Disease.								1932-33.	1931-32.	1930-31.	1929-30.	1928-29.
Gonorrhœa	..	..	..	..	..	..	..	212	188	188	214	167
Syphilis (all stages)	..	..	..	..	..	..	..	135	125	133	153	127
Gonorrhœa and Syphilis	..	..	..	..	..	..	..	25	26	28	20	13
Venereal Warts	..	..	..	..	..	..	..	3	2	..	1	..
Non. V.D. (nil definite)	..	..	..	..	..	..	..	19	..	..	..	..
Other Genital Conditions	..	..	..	..	..	..	..	29	..	..	..	..
Undiagnosed at date of report	..	..	..	..	..	..	..	11	88	61	45	37
Totals	..	..	..	..	..	..	..	434	429	410	433	340
Actual Venereal Cases	..	..	..	..	..	..	..	375	341	349	388	303

Female Clinic (William Street).

This is a really modern and creditable unit. Since its establishment a little over eighteen months ago there has been a very marked in-

crease in the number of attendances and new cases as compared with figures under the previous system. A short summary of operations with some figures for previous years is shown:—

								1932-33.	1931-32.	1930-31.	1929-30.	1928-29.
Consultations (Medical Officer)	..	..	..	..	..	..	..	2,103	1,472	..	..	..
New Cases	..	..	..	..	..	..	..	147	*83	98	84	..
Notified (Venereal)	..	..	..	..	..	..	..	77	*65	38	29	..
“ 914 ” administered	..	..	..	..	..	..	..	370	137	..	..	..
Bismuth administered	..	..	..	..	..	..	..	404	148	..	..	..
Local Treatments	..	..	..	..	..	..	..	660	854	..	..	..
Certificates of Apparent Cure	..	..	..	..	..	..	..	..	..	13	4	..

* Incomplete.

This marked increase is not necessarily due to an increase in the amount of venereal disease in females, but to the fact that a greater percentage of infected cases are seeking treatment. There are two main reasons for this. Firstly, the establishment of a central and modern clinic, staffed entirely by women, is appreciated by patients. Secondly, where possible it has been the practice at the male clinic to ascertain the

sources of infection and, where information is definite enough, the person is requested to submit for examination. There has been some criticism of this measure on the grounds that innocent parties may be ordered up; but the best reply to this is that of 46 cases brought for examination 38 were found to have venereal disease and the remainder did not deny promiscuity and the risk of infection. Due circumspection

is always exercised in acting upon the information thus obtained. In addition, there is evidence that many more reported as a result of male patients, on advice received, informing their paramours of the need for examination and the whereabouts of the clinic.

The following table shows the number of prostitutes examined at metropolitan and country centres and the numbers committed to institutions for treatment. Some figures for previous years are shown for comparison:—

Year.	METROPOLIS.		OUTSIDE METROPOLIS.	
	Examined.	Detained.	Examined.	Detained.
1929-30	847	64	993	41
1930-31	892	71	944	34
1931-32	845	68	956	34
1932-33	637	72	716	25

It will be seen that although approximately the same number are examined in both metropolitan and extra-metropolitan centres, yet a far greater percentage are detained as a result of the metropolitan examinations. This can mean only one of two things, either disease is more prevalent amongst prostitutes in the metropolis, or the examinations in the extra-metropolitan centres leaves room for increased efficiency.

Prostitutes from Brisbane and several country centres are committed to the Venereal Isolation Hospital at Park road. A hostel or an industrial home for infected, delinquent, and homeless girls is badly needed, as the facilities for segregation of professionals and amateurs at Park road are limited. Altogether 79 prostitutes were admitted to Park road, and included the 72 from William street plus 5 from Rockhampton and 2 from Toowoomba. The remaining 18 were treated at outside centres.

Prevalence of Venereal Disease.

The prevalence of venereal disease and its resultant economic damage is insufficiently appreciated. Public apathy must be aroused if this worst of all scourges is to be effectively combated. The amount of notified venereal disease in Brisbane is almost as great as the total of all other notifiable disease, and were all cases reported (anonymous notification) would probably exceed this total.

Also syphilis, cloaked under many another name on death certificates, is easily the greatest “killer” in the State—verily the captain of the men of death. It has become the fashion in some quarters to belittle the prevalence of venereal disease, but it is interesting to note that, as pointed out by the Director of the Division of Venereal Disease for New South Wales, angina pectoris, for instance, appears much more frequently in recent years as a cause of death, and that it is estimated that 50 per cent. of such disease is probably due to syphilis. Sub-curative doses of treatment, whilst clearing up the obvious signs, is believed to increase the liability to later vascular and nervous manifestations. This in an age when more and more people are becoming dependent upon the mental alertness and physical fitness of one man is a matter of increasing concern. No person who is infected with late and untreated syphilis should have any control over any form of mechanised locomotion, and yet there must be many such cases in existence.

A young and undeveloped country like Queensland, several times as large as England, and with barely a million of population, can ill afford to lose three lives every day from a preventable disease like syphilis—yet such is the case.

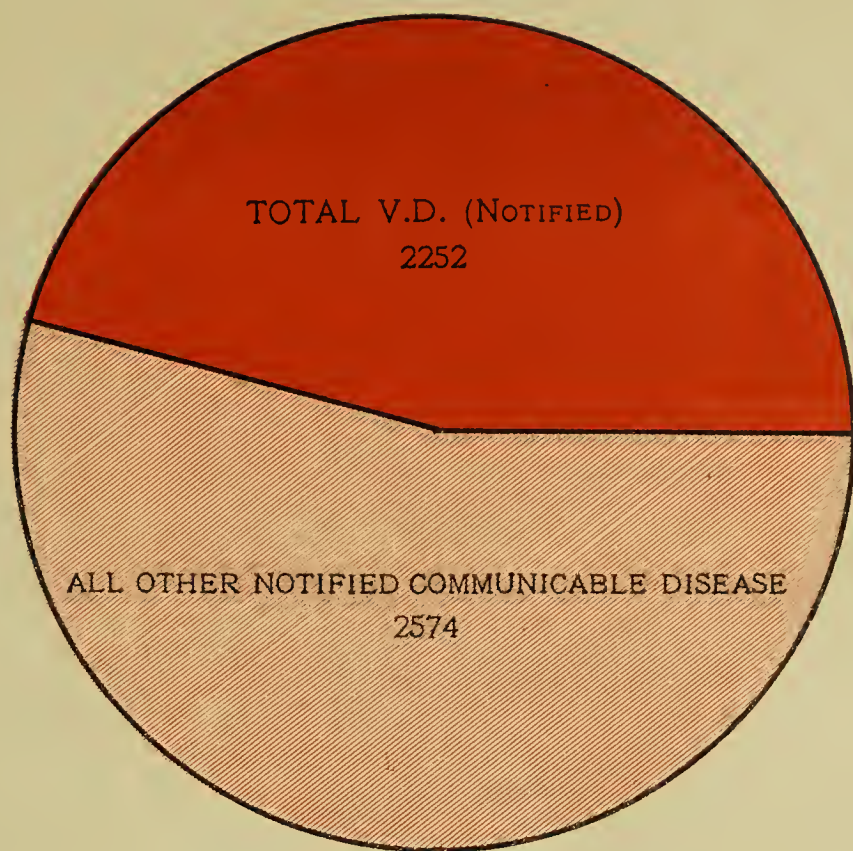
It should also be remembered that venereal disease enormously increases expenditure on pensions and fills half the gynæcological beds in the public hospitals—in short, that it causes more economic loss than the combined efforts of cancer and consumption, and that such disease is probably the most preventable of all diseases.

Graphs.—Two graphs are shown herewith in order to impress the extent to which these diseases exist and the damage they cause.

Graph I. shows the incidence of notifiable infectious disease in Brisbane for the last two years.

Graph II. illustrates the sinister influence of syphilis (merely one form of venereal disease) in the lives of our scanty population. Owing to the fact that many deaths from syphilis are recorded under other names, various attempts have been made to estimate the true proportion. One of the latest was by Ransone in Virginia in 1929. He gave the following values as the probable proportion of deaths from other classifications which might be ascribed to syphilis. These values give a lower figure than do those of the Commonwealth Committee who reported in the causes of death and invalidity in 1914. Also there are a certain number of cancer and tuberculous cases in which syphilis has been a predisposing cause, so that the graph representing syphilis may be fairly taken as a conservative one. These were Ransone’s values on which the graph is based:—

Syphilis	100
Locomotor-ataxia	100
Congenital Debility, Ieterus, Sclerima ..	100
General Paralysis of Insane	100
Angina Pectoris	50
Organic Disease of Heart	50
Diseases of Arteries, Atheroma, Aneurism	40
Cerebral Haem., Apoplexy	40
Softening of the Brain	40
Bright’s Disease	20
Epilepsy	10
Encephalitis	10
Meningitis	10



I. INCIDENCE OF NOTIFIED COMMUNICABLE DISEASES IN BRISBANE DURING THE LAST TWO YEARS—
July, 1931—June, 1933.



Propaganda.

During Health Week the opportunity was taken to deliver an address, and to publish an article on "Social Diseases." The number of enquiries, personal, and by letter, received, is eloquent testimony of the efficacy and need for propaganda work. Some criticism was received from the churches, but was probably due more to a desire to defend past attitudes than to any hostility, and indications point to an awakening interest by the churches in this matter which it is hoped will be maintained.

Little else has been done in the way of publicity, mainly because of expense, but this is probably a wrong attitude. A great amount of venereal disease is due to ignorance, and notices in public conveniences and the distribution of pamphlets will do much to enlighten people, not only as to the dangers and possibilities of infection, but also the need for efficient treatment. It costs more to treat one case of syphilis than it does to print many thousands of pamphlets.

General Remarks.

During the past two years the male and female metropolitan clinics have been improved, but much of the good work will lapse if, when cases move to other centres, different routines and methods are adopted. The outside treatment centres are urged to co-operate in adopting as far as practicable a uniform system of treatment, and possibly could, with advantage be visited periodically at a later date in order to facilitate this. The routine treatment of syphilis in the metropolitan clinics has been printed in this report with this object in view. There is, of course, no desire to limit individual preference for certain preparations—these courses merely representing more or less, present-day standards—but naturally it is an advantage to know what a patient means when he comes from another centre, and states that he has had one or two "courses" of treatment. Moreover, it is only by some consistent and uniform system of treatment being followed that its efficacy or otherwise can be fully determined.

In conclusion, appreciative reference must be made to the excellent work of those assisting in the administration of this section of the Health Acts. The full-time Medical Officer—Dr. G. S. S. Hayes—and the part-time Medical Officer at the female clinic—Dr. Beatrice Warner—ably assisted by the nursing staff, have shown commendable enthusiasm and interest in their work, and the harmonious working of the male clinic has been due in no small measure to the capable manner in which the assistant and the clerical officers have discharged their duties.

Legal Measures.

ACTION REGARDING DEFAULTERS.

	Male Clinic (Hope St.).	Other than Hope St.	State Totals.
Defaulters—			
Notified	238	128	366
Resuming treatment ..	145	79	224
Not located	93	35	128
Action not finalised			
July, 1930 .. .. .	..	8	8
Left Queensland (ascertained) .. .. .	..	*6	6

* 4 males and 2 females dead.

PROSECUTIONS.

	Males.	Females
(a) Failure to comply with official notice (V.D. reg. 9)	11	2
(b) Failure to comply with official notice (V.D. reg. 10), prostitutes .. .. .	..	46
(c) Unlawfully treating V.D. (section 162 (1))	1	..
(d) Failure to continue treatment after warning (section 162 (3)) ..	11	..
(e) Occupying or residing in house frequented by prostitutes ..	..	..
(f) Knowingly infecting a person with V.D. (section 162 (12)) ..	..	1
(g) Handling foodstuffs (V.D. reg. 14 (1))	1	..
Totals	24	49

Total prosecutions, 73 (metropolitan 69, outside 4).

Total fines imposed .. £105 4 0

Total costs imposed .. 15 10 0

£120 14 0

Food Handlers.—One barman, two confectioners, two male shop assistants, and two waitresses were warned during the year, one of whom, a male, was proceeded against subsequently for a breach of V.D. Regulation 14, as he continued to handle foodstuffs (fruit) after a warning had been given.

Prisoners detained under Section 164 (2) (c).

	Metrop. Prison.	Ex. Metrop.	Totals.
Males	8	..	8
Females	1	..	1
Totals	9	..	9

Certificates of Cure or Apparent Freedom from Disease (Whole State).

	Males.	Females.	Totals.
Metropolis	345	173	518
Outside	96	23	119
Totals	441	196	637

Marital Status of Patients Notified (in Sex Groups and under Disease Headings).

Marital Status and Area.	Gon		Oph. Neon.		Syph. I. and II.		Syph. III.		*Syph. (Unsp.)		Soft Chancre.		Ven. Warts.		Ulc. Gran.		Gon. and Ven. Warts.		Gon. and Syph. (Various)		Syph. and Gran.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M. F.
Married—																									
Metropolitan ..	105	74	..	..	7	2	13	23	9	17	..	..	..	..	..	..	1	..	2	..	..	..	134	119	253
Outside ..	56	26	..	..	2	3	11	11	9	10	1	..	..	..	..	..	..	11	4	..	1	90	55	145	
Single—																									
Metropolitan ..	411	122	1	..	35	2	15	12	38	23	..	..	9	..	..	..	1	..	3	1	..	..	513	160	673
Outside ..	186	50	..	..	5	6	11	4	29	8	2	..	..	..	1	..	..	8	9	..	..	242	77	319	
Separated—																									
Metropolitan ..	15	2	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	16	4	20
Outside ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Widowed—																									
Metropolitan ..	5	2	..	..	2	..	4	3	..	4	..	..	1	..	..	..	..	..	..	..	..	..	16	5	21
Outside ..	4	6	..	..	..	..	..	2	..	3	1	..	..	..	..	..	..	7	1	..	..	14	10	24	
Unknown—																									
Metropolitan ..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Outside ..	3	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	6	..	6
Totals ..	788	282	1	..	51	13	56	56	85	68	4	..	10	..	1	..	1	1	29	17	..	1	680	288	968
																						354	142	496	
Whole State ..	1,070		1		64		112		153		4		10		1		2		46		1		..		..

* Includes a number of early acute cases not specified as Syph. I. or II. on Form A (anonymous notification).

Ages of Persons Notified (in Sex Groups and under Disease Headings).

Ages.	Gon.		Oph. Neon.		Syph. I. and II.		Syph. III.		*Syph. (Unsp.)		Soft Chancre.		Ven. Warts.		Ulc. Gran.		Gon. and Syph.		Syph. and Gran.		Gon. and Ven. Warts.		Totals.		Grand Totals.
	M.	F.	M.	F.	M.	T.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1 year and under	2	1	2	1	4	5
2 years ..	1	4	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	6	7
3 years ..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
4 years ..	..	4	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	2	6	8
5-10 years ..	2	17	..	..	1	..	..	1	12	10	..	..	..	..	..	..	1	..	..	..	..	15	29	44
11-15 years ..	..	2	..	..	..	..	..	1	11	7	..	..	..	..	..	..	..	..	..	..	..	11	10	21
16-20 years ..	109	53	..	..	4	2	3	4	1	2	..	..	1	..	..	..	2	..	..	..	..	118	63	181
21-25 years ..	243	73	..	..	9	5	3	11	13	12	1	..	5	..	..	..	4	..	..	1	1	275	106	381
26-30 years ..	163	49	..	..	15	1	2	3	15	5	3	..	2	..	1	..	3	2	..	..	..	204	60	264
31-35 years ..	81	36	..	..	10	1	4	11	7	13	..	..	1	..	..	7	3	..	..	..	..	110	64	174
36-40 years ..	64	15	..	..	5	1	6	6	4	..	..	..	..	..	..	2	..	..	..	..	..	81	22	103
41-45 years ..	57	5	..	..	3	..	7	5	..	2	..	..	..	..	..	4	2	..	..	..	..	71	14	85
46-50 years ..	20	3	..	..	1	..	11	3	6	2	..	..	1	..	..	4	1	..	..	..	..	43	9	52
51-55 years ..	19	1	..	..	2	..	4	5	3	3	..	..	..	..	..	4	..	..	..	..	..	32	9	41
56-60 years ..	4	1	..	..	..	..	4	1	1	..	..	..	..	..	..	..	..	..	..	..	..	9	2	11
61-65 years ..	5	3	..	..	..	..	7	1	2	1	..	..	..	..	..	3	..	..	..	..	..	17	5	22
66 years and over ..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	2	..	..	..	..	..	3	2	5
Unknown and unstated	20	10	..	..	1	2	4	4	8	4	..	..	..	..	..	..	2	..	1	..	..	33	23	56
Totals ..	788	282	1	..	51	13	56	56	85	68	4	..	10	..	1	..	29	17	..	1	1	1	1,026	438	1,464
Whole State ..	1,070		1		64		112		153		4		10		1		46		1		2		1,464		1,464

NOTE.—The age of greatest incidence for Acute Gonorrhœa was 22 years,

Monthly Incidence of Cases Notified (in Sex Groups and under Disease Headings.)

Month.	Gon.		Oph. Neon.		Syph. I. and II.		Syph. III.		*Syph. (Unsp.)		Soft Chancre.		Ven. Warts.		Ulc. Gran.		Gon. and Soft Chancre.		Gon. and Ven. Warts.		Gon. and Syph.		Syph. and Gran.		Monthly Incidence.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1932.																										
July—																										
Metropolitan	29	14	..	..	3	1	1	2	3	2	..	..	1	..	..	..	..	1	..	..	..	..	1	58	99
Outside ..	23	5	..	..	1	2	3	1	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	41	
August—																										
Metropolitan	29	20	..	..	4	..	11	6	3	4	..	..	2	..	..	..	..	..	..	1	1	..	..	80	105
Outside ..	9	2	..	..	1	2	2	..	7	1	..	..	..	..	..	..	..	..	1	..	..	..	..	25	
September—																										
Metropolitan	46	15	..	..	2	..	4	6	7	7	..	..	1	..	..	..	..	..	..	..	..	..	..	88	137
Outside ..	28	11	..	..	2	..	1	2	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	49	
October—																										
Metropolitan	42	16	..	..	6	..	..	2	6	5	..	..	1	..	..	..	..	..	..	..	..	..	..	78	110
Outside ..	20	5	..	..	1	2	..	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	32	
November—																										
Metropolitan	53	13	..	..	2	..	1	..	9	4	..	..	1	..	..	..	..	..	1	..	..	..	..	84	125
Outside ..	20	7	..	..	..	1	1	1	5	5	..	..	..	..	..	..	..	..	..	1	1	..	..	41	
December—																										
Metropolitan	64	20	..	..	4	1	4	10	7	7	..	..	..	..	..	..	..	..	..	..	..	..	..	117	142
Outside ..	14	5	..	..	..	..	2	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	25	
1933.																										
January—																										
Metropolitan	38	17	..	..	3	1	1	2	1	..	..	..	1	..	1	..	..	..	1	..	..	..	..	65	105
Outside ..	25	6	..	..	..	..	..	1	6	1	..	..	..	..	1	..	..	..	..	..	..	..	..	40	
February—																										
Metropolitan	32	12	..	..	4	..	3	3	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	56	85
Outside ..	17	8	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	29	
March—																										
Metropolitan	73	22	1	..	9	..	3	1	6	9	..	..	1	..	..	..	..	..	..	..	..	..	..	125	218
Outside ..	31	14	..	..	2	..	8	4	2	5	..	..	..	..	..	..	..	..	20	7	..	..	..	93	
April—																										
Metropolitan	36	13	..	..	2	..	2	3	1	..	..	..	2	..	..	..	1	..	..	..	..	..	..	60	99
Outside ..	13	11	..	..	..	1	..	2	2	2	..	..	..	..	..	..	1	..	2	5	..	..	..	39	
May—																										
Metropolitan	46	25	..	..	3	..	..	3	3	3	..	..	..	..	..	..	..	..	..	1	..	..	..	84	127
Outside ..	23	3	..	..	..	..	5	4	1	2	2	..	..	..	..	..	..	..	..	3	..	..	..	43	
June—																										
Metropolitan	49	13	..	..	2	1	3	1	1	3	..	..	..	..	..	..	..	1	..	..	..	..	..	74	112
Outside ..	28	5	..	..	..	1	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	38	
	1,070		1		64		112		153		4		10		1		2		2		44		1		1,464	

Sanitation.

The following is an outline of the work accomplished by the Sanitary Inspectors' Staff in matters relating to sanitation for the year ending 30th June, 1933.

The many duties which come under the purview of the Sanitary Inspector has kept the staff fully occupied.

The following inspections, etc., have been carried out:—

General inspections	..	..	..	2,639
Nuisances attended to	..	..	..	177
Sanitary depots visited	..	..	..	30
Rubbish disposals inspected	..	..	..	54
Official calls	..	..	..	181
Total	..	..	..	3,081
Towns visited	..	..	..	79

Owing to the continued state of depression and financial stringency the activities of the Departmental staff have been seriously handicapped and many of the outside centres have not been visited. Nevertheless those areas visited show a steady advance in sanitary executive. This is evidenced by the reports of the Departmental officers and those of the Local Authorities Health Inspectors. These reports show that systematic inspection and closer supervision result in much improved conditions now prevailing.

The monthly reports received from Inspectors are carefully perused, and where necessary, advice, criticism, or instruction is given on matters which arise out of such reports; although a considerable amount of work is entailed, it is most necessary, in order to exercise proper surveillance over the health of the State.

The conduct of sanitary services still receives the same strict supervision and attention, and with few exceptions these are carried out by daylight and are well conducted. When officers of this Department visit localities, the disposal areas and attendant plants are carefully inspected and thanks to the local officers are invariably found to be in good order. During the year a reorganisation of the rat destruction work in regard to plague prevention took place when a scheme for the amalgamation of the Departmental gang and the Brisbane City Council's gang was given effect to and the strength of the gang increased to 46. In consequence the results have been very satisfactory.

The number of rodents examined at the Laboratory during the year was as follows:—

	Rats.	Mice.
Brisbane City Council	24,087	791
Health Department	419	3
Miscellaneous	21	1
	25,322	

NUMBER OF RODENTS CAUGHT BUT NOT EXAMINED.

	Rats.	Mice.
Brisbane City Council	3,332	244
Health Department	1,792	16
	5,384	

Cairns, Townsville, Mackay, Rockhampton, Bundaberg, Maryborough, Gympie, and Ipswich still continue rat destruction operations, the results of which are forwarded to this office in weekly reports.

Sanitary Staff.

All seaside resorts and camping grounds in the north and south coast areas were again visited and exhaustive inspections made in regard to accommodation provided for visitors and campers; reports and recommendations were submitted to the Local Authorities concerned for attention and advice.

The accommodation is gradually improving.

A number of Councils have been active in this regard, and modern conveniences, good water supply, and other necessities have been provided.

A visit was paid to Nambour *re* sanitary site and a report and recommendations made.

Southport.—A journey was made to this town owing to a nuisance caused by the drainage from one of the hotels. After inspection a report and recommendations were made, and as a result the nuisance was abated.

Cracow.—As a result of a report received, a special visit was made to this new goldfield.

Sanitation at the time of arrival at this settlement was appalling, and as this was a case for urgent action it necessitated a meeting of the residents being called, when an address on matters of import, i.e., sanitation in general, was given so as to secure the whole-hearted co-operation of the residents. After a thorough inspection of the field had been made carpenters were interviewed *re* the construction of flyproof cabinets and orders sent to the shire clerk for sanitary pans, wagon, &c. A sanitary site was selected and word sent to the shire council to at once make arrangements to have the site gazetted after being surveyed by the Government surveyor.

On arrival of the council's employees with the plant a start was made to clean up the settlement in readiness for the sanitary service which was started about ten days afterwards. The measures put in force I feel sure were the means of preventing a serious outbreak of disease.

Roma.—As a result of repeated complaints *re* the pollution of Bungil Creek by the discharge of the town drainage into it, the above town was visited, and a report and recommendations made as to the treatment of the polluted water-holes until such time as a new pump, which was on order, arrived, when land disposal will again be resorted to and the nuisance abated.

St. George.—An advance in sanitation is being made in this town, i.e., the contemplated deep drainage scheme, plans of which were submitted to this Department for perusal. Several alterations and improvements were suggested, together with the insistence of some form of treatment before it reaches the river. These have been embodied in the scheme.

Sanitary Contracts.

The following contracts have been perused and amended where necessary:—Magnetic Island, Coolon, Merinda, Tara, Wangaratta, Woodford, Waggamba, Ayr, Millmerran, Yangan, Tannymorel Killarney, Kilkivan, Beenleigh, Mitchell, Ilfracombe, Blackall.

The By-laws for Pittsworth were submitted for perusal and duly passed,

Water Sampling.

Forty-six outfits were despatched and the samples collected on return for bacterial examination. Forty-two outfits for chemical analysis were despatched and collected for analysis.

Hotel Sanitation.

A steady improvement is still being effected in hotel sanitation. Practically all improvements required have been carried out. Of course only the essentially necessary requirements have been asked for owing to the still continued depression.

Particulars of Inspections.

Number of hotels	..	..	..	339
Objections lodged	..	..	..	40
Reinspections	..	..	..	40

During the year the plans of several hotels have been examined, and where necessary alterations or improvements suggested which have been embodied, and as a result improved conditions have resulted.

TOOWOOMBA AND DISTRICT.

The inspector in charge of the district reports the following particulars for the year ending 30th June, 1933:—

Number of inspections	..	..	..	1,532
Number of official calls	..	..	..	177
				1,709
Number of nuisances attended to	..	..	..	91
Number of sanitary depots inspected	..	..	..	25
Number of garbage tips inspected	..	..	..	31
Number of towns visited	..	..	..	25
Miles travelled by car	..	..	..	204
Miles travelled by train	..	..	..	1,246

Tangible action has been taken to correct some of the pollution to Gowrie Creek in the environs of the city. A sanitary service under section 63 of the Health Acts has been undertaken by the Waggamba Shire for the town of Yelarbon.

Hotel Sanitation.

Number of hotels inspected	..	..	158
Number of objections lodged	..	..	38
Number of hotels reinspected	..	..	42

Licensing districts visited—Toowoomba, Helidon, Warwick, Stanthorpe, Goondiwindi, St. George, Pittsworth, Dalby, Oakey, Inglewood, and Texas. Plans and specifications and the work in connection with the building of new hotel structures at Drayton, Texas, Dirranbandi, and Jandowae were supervised, and improvements in general sanitation of existing premises were required in many instances.

ROCKHAMPTON AND DISTRICT.

The inspector in charge of this district reports the following particulars for the year ending 30th June, 1933:—

Number of inspections	..	..	..	1,011
Number of official calls	..	..	..	104
Number of nuisances visited	..	..	..	23
Number of sanitary depots inspected	..	..	..	19
Number of rubbish tips inspected	..	..	..	17
Number of towns visited	..	..	..	28
Miles travelled by train	..	..	..	2,780
Miles travelled by car	..	..	..	692

All matters of general sanitation, both in the city of Rockhampton and the other country towns have received attention during the year. Steady progress continues to be made in the work of relaying concrete street channelling in the city. Defective drainage on various private properties has received attention.

Sanitary and garbage services have been carefully inspected, and these have been ably carried out under the supervision of the city inspector.

Hotel Sanitation.

The following is the result of inspections of hotels in conjunction with the police licensing inspector for the renewal of licenses.

Number of hotels inspected	..	..	96
Number of objections lodged	..	..	69
Number of reinspections	..	..	10

Practically the whole of the objections lodged apply to hotels in the far-Western towns where, owing to the financial depression, owners have allowed their premises to get into a bad state of repair, and in order to get them to make some effort to improve the buildings it was necessary to issue notices.

After continuous efforts and with the co-operation of the police licensing inspector the creation of a new hotel in place of the old Dunmore Arms Hotel in Rockhampton has become an accomplished fact.

The general condition of hotels throughout the district is fairly satisfactory, and to strictly enforce the regulations would be imposing an undue hardship on many of the owners.

MACKAY AND DISTRICT.

The Inspector in charge of the district reports the following particulars for the year ending 30th June, 1933:—

Number of inspections made	..	..	1,620
Number of official calls	..	..	71
Number of nuisances	..	..	180
Number of sanitary depots inspected	..	..	16
Number of rubbish tips inspected	..	..	24
Number of towns visited	..	..	32

The whole area visited was in fair order; no bad nuisances were observed and those that were in evidence were rectified in an amicable manner, no drastic acting being necessary.

Hotel Sanitation.

Five improvements were ordered, but necessary repair and renewals were carried out and conditions in hotels are fair.

TOWNSVILLE AND DISTRICT.

The district officer reports the following operations for the year ending 30th June, 1933:—

Number of inspections made	..	..	278
Number of official calls made	..	..	53
Number of nuisances attended to	..	..	12
Number of sanitary depots inspected	..	..	6
Number of rubbish tips inspected	..	..	6
Number of towns visited	..	..	7
Number of miles travelled	..	..	1,096

Townsville.—The nightsoil service is being carried out in a very satisfactory manner. A sewage system at least for the central portion of

the city is badly needed in order to provide for the proper drainage of premises and to eliminate the numerous drainage nuisances. Three new filter-beds at the waterworks are now in commission.

Charters Towers.—The urgent necessity for the cleaning up of the numerous accumulations of rubbish and the eradication of mosquito-breeding grounds was brought before the council for their attention.

Hughenden.—The sanitary circumstances of this town are satisfactory, except that the refuse tip requires to be cleaned up.

Richmond.—This town was found to be in a clean and sanitary condition. The council were advised to clean up the refuse tip and to take the necessary action to eliminate the mosquito-breeding grounds at the sewer outlets.

Julia Creek.—A favourable report was submitted on this township.

Cloncurry.—Cloncurry was found in a good sanitary state. The cleansing services are well carried out.

Ingham.—In consequence of a complaint regarding a nuisance caused by the discharge of liquid wastes from the Maenade Sugar Mill, an inspection was made, and the complaint investigated.

Stewart's Creek.—In connection with the proposed water supply for the township, two samples of water for chemical and bacterial examination were obtained from Alligator Creek near the proposed site of the dam.

Hotel Inspection.

Number of hotels inspected	..	..	71
Number of objections lodged	..	..	15
Reinspections	..	..	33

CAIRNS AND DISTRICT.

The district inspector forwards the following particulars of operations for the year ending 30th June, 1933:—

Number of inspections made	..	..	2,243
Number of official calls	..	..	45
Number of nuisances attended to	..	..	15
Number of sanitary depots visited	..	..	32
Number of rubbish tips inspected	..	..	12
Number of towns visited	..	..	36
Miles travelled by rail	..	..	3,428
Miles travelled by car	..	..	375
Miles travelled by boat	..	..	660

During the year under review an improvement was noticed in the towns visited. This is particularly noticeable in the coastal areas where Hookworm control is being undertaken. Soil pollution is being prevented and safe E.Cs. becoming the rule.

A new sanitary service has been instituted at Dimbulah, and at Silkwood the institution of a service is in progress.

Hotel Sanitation.

Number of hotels inspected	..	..	72
Number of objections lodged	..	..	2

The following licensing districts were visited:—Cairns, Herberton, Atherton, Innisfail, Douglas, Chillagoe, Etheridge, Croydon, Normanston, and Thursday Island.

FOOD AND DRUGS.

During the period under review (1932-33) the Division of Food and Drugs has continued its operations under the Pure Food and Drug Sections of the Health Acts, the Health (Food Supply) Regulations, the Food and Drug Regulations, Health (Fish Supply) Regulations, Footwear Regulations, and the Poisons Regulations. The character of the work has been that of previous years, but its scope has been extended by the heavy demand made upon its officers in connection with the examination of tobacco leaf, fruit and vegetables, mechanical refrigerators, and paint materials.

The staff employed upon these duties has during the year been increased by the addition of one inspector, but is still insufficient to cope with the volume of work imposed upon the division under the above enactments.

Milk (Brisbane Metropolitan Area).

Under the provisions of the Health Acts two standards are prescribed with which all milk for sale must conform, viz.:—a bacteriological standard (or standard of cleanliness) and a chemical standard (or standard of quality). These provisions necessitate the sampling of milk in two different and completely distinct directions.

It is pleasing to note, therefore, that the standard of the previous year has, on the whole, been maintained—in spite of the lack of incentive on the part of producers and distributors, due to adverse seasons and poor financial returns for the product.

The entire subject of milk supply can be dealt with under the two headings:—

Bacteriological.—During the year an increased number of samples (25.5 per cent. increase on the previous year's figures) was submitted to the bacteriologist for examination, and the results can be accepted as fairly satisfactory. It is, however, necessary to note in connection with the appended figures, that the departmental officers have concentrated on the more doubtful supplies of milk with a view to their amelioration. The desired improvement has, I am pleased to say, in most cases been effected.

The following table shows the dissected results over a period of years and forms an interesting basis for comparison:—

Bacteria per c.c.	1929-30.	1930-31.	1931-32.	1932-33.
Under—	Per cent.	Per cent.	Per cent.	Per cent.
10,000 ..	2.73	14.49	27.46	23.87
50,000 ..	15.03	42.62	56.36	52.81
100,000 ..	28.47	54.49	66.18	62.00
500,000 ..	63.10	77.68	83.46	83.54
1,000,000 ..	76.77	84.35	90.18	90.67

It will be observed that there is a slight decline in the percentage of samples with the lower counts, but that a slight increase is perceptible in the percentage of samples complying with the standard.

An improvement in the standard by lowering the permissible number of organisms per cubic centimetre would cause all producers and distributors of milk to redouble their efforts towards

the production and maintenance of a clean article, with a consequent improvement in the bacteriological quality of the milk.

To ensure the continued improvement of milk it is necessary to raise the standard, and a standard of not more than 500,000 organisms per c.c. in summer, and not more than 250,000 per c.c. in winter is well within the capacity of every dairy farmer.

During the year a considerable proportion of these milks were examined both microscopically and by animal inoculation for T.B. and other organisms, and it is gratifying to record that, with the exception of the presence of *B. coli*, due to faecal contamination, and a few cases of mammitis, the samples have been found free from pathogenic organisms.

It can safely be claimed that the samples submitted are representative of the milk sold in Brisbane—being obtained from dairies, the source of production, from trains and trucks in the course of consignment, and from the retail distributing vehicles.

To obtain the above results from such a wide range of samples would appear to indicate that the much maligned milk supply of Brisbane compares favourably with the vaunted “pure” milk supplies of other cities.

There is, however, still room for improvement, and it is the desire of the Department that the co-operation between producers, distributors, and itself, which has resulted in the present satisfactory state of the supply, will continue in the future with still better results.

Chemical.—During the fiscal year the officers of the division have systematically obtained samples of milk from every quarter of the metropolitan area, including Wynnum, Manly, Cleveland, Cribb Island, Sandgate, Redcliffe, also from the city of Ipswich and its environs.

During this period there has been no diminution in the number of licenses operative in the area, and the staff has been kept at top pressure in its endeavour to control as far as possible all avenues of milk production and distribution.

The number of samples obtained in the metropolitan area during the year was 1,640, as against 1,372 in the previous year, an increase of 19.54 per cent.

With the amount of money available for such work, it appears as if the maximum total is reached with these figures.

In addition to the above, officers of headquarters staff on tour in country districts obtained samples of milk at Maryborough, Howard, Pialba, Bundaberg, Coolangatta, Currumbin, Palm Beach, Burleigh Heads, Southport, Gympie, and Gatton, the number of samples obtained from these places being 100.

Thus the grand total of milk samples obtained by the headquarters staff was 1,740, an increase of 22.36 per cent. on last year's record total of 1,422 samples.

The quality of the milk samples submitted for chemical analysis will be dealt with in the Government Analyst's report.

Whenever a farmer has been found producing milk below standard he has been advised either by this Department's inspector or by an officer of the Department of Agriculture and Stock as to the best methods of improving the quality of his product, and the advice has usually resulted in an improved article.

Particular attention has been given to the inspection of milk vendors' premises to eliminate as far as possible the storage of cans and utensils under unhygienic conditions, and it is pleasing to report a big improvement in this direction.

Immediately prior to the Christmas holiday period a vigorous milk-sampling campaign was conducted by officers of the division in the sea-side resorts from Coolangatta to Redcliffe and the results were very satisfactory. This work is necessary in view of the large number of people who frequent these resorts in the summer months, thus entailing a severe strain on the local supplies.

In these circumstances the fact that no watered milk samples were obtained is noteworthy.

Whenever a case of infectious disease has occurred on dairy premises in the metropolitan area the premises have been visited immediately by an officer of the division and all necessary steps taken by him to prevent the spread of the disease by milk. It is pleasing to report that the Department's action in these matters has been effective.

In concluding these remarks upon the milk supply, I would remark that to secure average samples of milk during the various seasons of the year from the 1,300 individuals licensed to sell milk in the metropolitan area it is necessary to treble the number of samples obtained last year. This, with the staff at present employed on such work, and the expenditure available for the purpose, is impossible, and consideration will have to be given to the question of increase of staff and expenditure if such an important article of the public diet is to receive the attention it merits.

*Milk Prosecutions (Headquarters Staff).—*During the year twenty persons were prosecuted by officers of headquarters staff for the offence of selling milk adulterated with added water, the percentages of water ranging from 3·6 per cent. to 21·8 per cent. A conviction was obtained in each instance and penalties imposed by the police magistrates amounting to, fines £202 10s. and costs £31 10s. 6d., being an average fine of £10 2s. 6d. and average costs £1 11s. 6d. per case.

The newly gazetted section of the Health Act, which requires that a person convicted of the offence of selling milk adulterated with added water shall be fined at the rate of £1 per centum of such water, was found helpful in the above connection.

In addition to adulteration cases, seven milk-sellers were prosecuted on various counts, such as selling milk without a license, carrying water on milk cart, having milk measures without lids, having rags in lids of cans, failing to have name and address on vehicle, &c.

A conviction was obtained in each instance and penalties amounting to, fines £5 10s. and costs £3 15s. 6d. imposed, being an average fine of 18s. 4d. and average costs 12s. 7d. per case.

Fish Supply.

Throughout the entire year supervision over the fish supply of the metropolitan area has been exercised by two full-time officers of headquarters staff. These two officers between them have inspected all fish coming into the State Fishmarket for auction at the two daily sales and have examined fish in cold stores, fish depots, and retail shops.

Fish arriving in Brisbane by steamer from overseas ports and by rail from other States has also received attention at their hands.

As the result of such inspections these officers have condemned and destroyed as unfit for human consumption a total quantity of 72 tons 2 cwt. 3 qr. 18 lb. of assorted fish, 847 sand crabs, 10 lobsters, 19 turtles, and a number of green mud crabs.

Fruit and Vegetables.

One officer has during the period under review attended early morning sales at the Roma street and Turbot street markets and has inspected all fruit and vegetables arriving at such places for sale. On the whole, vegetables have been received in a much cleaner condition in so far as contamination with lead arsenate and other spray residue is concerned, and condemnations therefore were comparatively light compared with those of previous years. In all 51 dozen cabbages and 68 dozen cauliflowers were removed and destroyed on account of such contamination. For having arsenic on cabbage forwarded by him for sale one grower was prosecuted and fined £10 and 6s. costs.

Certain shipments of celery from South Australia which showed signs of heavy contamination with copper compounds were rejected and removed from sale. As the result of such action the Government concerned has, through its Agricultural Department, arranged with growers that in the future all plants shall be thoroughly soaked and water-jetted so as to remove all dirt and spray residue previous to packing for shipment to this State.

General Inspections.

In the course of routine duty visits have been paid by headquarters officers to wholesale warehouses, retail stores, food factories, bond and free stores, auction marts, river wharves, and other premises and places where food for sale is stored, manufactured, or prepared.

Unsound and Deteriorated Foods.

Arising out of the above inspections the said officers have removed from sale and arranged the destruction of some 12 tons 8 cwt. 20 lb. of unsound and deteriorated food material, comprising cereals, confectionery, coconut, tinned fish, flour, fruit (fresh and preserved), honey, jams, tinned meats, mustard, salt, soups, vegetables, and miscellaneous.

Additionally a considerable quantity of fire salvage goods damaged by water and consisting of patent medicines and tobacco was destroyed under official supervision.

Sampling.

During the course of their duty and for investigation purposes inspectors of headquarters staff submitted 4,341 samples to the Government Chemical Laboratory for analysis and 419 specimens to this Department's Bacteriological Laboratory for examination.

The samples submitted to the Chemical Laboratory are dealt with in the Government Analyst's report and will not be enumerated here.

The specimens handed to the Bacteriological Laboratory include bottles (for sterility), bread (rope), camp pie (organisms), disinfectants (carbolic coefficient), fibre, flock, flour, floor scrapings, filter wads, frozen dainties, ice cream, hair (arsenic), insecticides, kapok, malt, milk, oysters, salt, soap, sodawater, water, wheatmeal, wool, yeast preparations, &c.

Prosecutions.

Seven persons were during the year prosecuted for breaches of the Health Acts, including the offences of selling adulterated cereals, selling adulterated household ammonia, dispensing a medical practitioner's prescription incorrectly, obstructing an inspector, and assaulting an inspector.

A conviction was obtained in each instance and penalties imposed amounting to, fines £34 10s. and costs £15 18s. 6d., being an average fine of £4 6s. 3d. and average costs of £1 19s. 10d. per case.

A further case under the V.D. Regulations was taken against a man for handling food for sale whilst suffering from such complaint. This individual was convicted and fined £5 and 6s. costs.

*Prosecutions (Food and Drug Regulations).—*Headquarters officers proceeded against four persons for breaches of these regulations, including the offences of having filthy café premises, exposing food on footpath, cockroach infestation of café, and the sale of unlabelled oysters.

A conviction was obtained in each instance and penalties imposed amounting to, fines £15 14s. 6d. and costs £3 3s. 6d., being an average fine of £3 18s. 7d. and average costs 15s. 10d. per case.

Frozen Dainties.

Inspection has been continued throughout the entire year of business premises in which frozen dainties are prepared in mechanical refrigerators—more particularly those located in the immediate vicinity of schools and places of entertainment. The officer engaged upon this work has, in the course of his inspections, travelled some 1,436 miles, visited 583 premises, examined 353 refrigerators, and obtained 234 samples of the products prepared therein for the purpose of bacteriological examination.

Of the 353 refrigerators overhauled, 45 were found containing freezing moulds composed of tin-lined copper, and these were required by the Inspector to be replaced by trays of an approved material such as monel metal, staybrite steel, or aluminium.

In every instance in which the bacteriologist's report disclosed an excessive bacterial count a return visit was made to ascertain the cause and steps taken to correct such defect.

So far, supervision in this connection has been conducted mainly upon educational lines, but the officer concerned has given the owners of such apparatus plainly to understand that if in the future his advice is found not to have been followed and excessive bacterial counts continue, he will have no alternative than to recommend prosecution.

Liquor Inspection.

Regular inspections have been made of the stocks in the bars and cellars of some seventy hotels in the city and suburbs. Generally a keen desire has been evinced in maintaining the standards required by the Health Acts, with the result that in no instance has it been found necessary to prosecute.

Owing probably to the prevailing depression plant is not always maintained as it should be, and this at times produces curious results. For instance, in most public bars the rum is served from one or two gallon oak casks fitted with automatic measure taps.

In some cases these taps have become leaky and the resultant drip caught or collected in a glass and later on returned to the cask.

Apart from the possibility of its contamination from exposure, the spirit strength evaporates and necessarily reduces the original strength of that in the cask.

Discontinuance of the practice has speedily followed when a licensee's attention is directed to the facts.

Liquor Booths at Racecourses.—Exhibition ground, cricket, and sports grounds have been regularly visited and inspected, and in every instance found satisfactory.

The hot-water system, installed at Ascot racecourse by the Q.T.C. committee at this Department's request, has proved most satisfactory and efficient, and will in all probability meet catering requirements there for many years to come.

The bar and refreshment-room arrangements at the new Doomben racecourse have been laid out in an up-to-date manner, an adequate hot-water supply, services, bar, and refreshment-room appurtenances being suitable and sufficient for public requirements.

Provision for the proper handling of foods at cricket and sports grounds still requires considerable improvement, but gradually this is being effected.

TOBACCO.

The advent of this new industry has resulted in a considerable amount of additional work being thrown upon the shoulders of this Department's officers, and has taxed its analytical facilities to the utmost.

During the period under consideration a total of 1,462 samples of tobacco leaf drawn from stocks submitted for sale by public auction and

from tobacco graders' premises in Brisbane, Townsville, Cairns, and Mareeba were submitted to the Government Chemical Laboratory for examination.

The quantity of tobacco leaf offered for sale during the year by Messrs. Dalgety and Company at its Brisbane auction rooms was approximately 979,270 lb., of which amount approximately 8,940 lb. was withdrawn as unfit for manufacture into smoking tobacco.

In addition to the above, samples of manufactured cigarette and pipe tobacco and of made cigarettes have been obtained and submitted to analysis.

PAINT.

With the force at its disposal and owing to the pressure of other duties it has not so far been possible to do more than to inaugurate the new paint sections of the Health Acts in the direction of requiring declaration of formulæ upon containers. This phase of the question has of itself, however, entailed considerable work in the inspection of stocks, in answering inquiries, and in official correspondence relating thereto. Chemical analysis of paints and pigments has also been necessary for investigatory purposes. At a very early date it will be necessary to obtain certain amendments of the Health Acts in order to render the paint law more effective.

BREAD-WEIGHING.

As the result of bread-weighing in the metropolitan and certain country districts, inspectors of Headquarters' Staff proceeded against eight bakers for the offence of selling bread deficient in due weight. A conviction was obtained in each instance, and penalties imposed amounting to fines £26 12s. and costs £2 11s. 6d., being an average fine of £3 6s. 6d. and average costs of 6s. 5d. per case.

BAKEHOUSES.

During the year a special visit of inspection was paid by an officer of Headquarters' Staff to seventy-six (76) bakehouses in the Brisbane metropolitan area, with the result that no defects of a serious character were observed.

FOOTWEAR.

Inspections under the Boot and Shoe Regulations have been carried out from time to time during the fiscal period under review. These indicate that the trade concerned is without exception very careful, and that it faithfully observes requirements under the law.

No "dumping" of unbranded boots or shoes on the local market has come under official notice within the said period.

PLACES VISITED (HEADQUARTERS' STAFF).

The following is a list of places visited by members of Headquarters' Staff on tour:—

Alberton, Alexandra Heads, Avondale.

Beaudesert, Beenleigh, Beerwah, Benarkin, Blackbutt, Bibbohra, Buderim, Bundaberg, Burleigh Heads, Burketown.

Cairns, Coolangatta, Coomera, Cooroy, Crawford, Currumbin.

D'Aguilar, Dayboro, Dimbulah.

Elanora, Esk.

Forest Hill, Fumar.

Gatton, Goomeri, Grandchester, Grantham, Gympie, Gympie Terrace, Hivesville, Howard.

Kilkivan, Kingaroy, Kileoy, Kumbia.

Landsborough, Laidley, Leafgold, Linville, Lowood.

Maleny, Marburg, Mareeba, Maryborough, Maroochy, dore, Miami, Montville, Mooloolaba, Moore, Murgon, Mudgeeraba, Mulgowie.

Nambour, Nanango, Nerang, Noosa.

Ocean Beach, Oxenford.

Palmwoods, Petrie, Pialba, Proston.

Redcliffe, Rosewood.

Samford, Scarborough, Southport.

Taabinga Village, Tewantin, Theebine, Tingoorra, Toogoolawah, Torbanlea, Townsville, Tugun.

Villeneuve.

Waterford, West Burleigh, Wondai, Woody Point, Woodford, Woolooga, Woombye, Wooroolin.

Yandaran, Yandina, Yarraman, Yatala.

FOOD POISONING.

A number of cases of alleged food poisoning have been investigated by the department's officers during the period under review—mostly with negative results.

This unsatisfactory state of affairs has been due largely, if not entirely, to lack of prompt notification of such happenings, with the result that it has not been found possible to secure clinical specimens or samples of the particular food material implicated for bacteriological examination and chemical analysis.

As the law stands at present there is no obligation placed upon medical practitioners to notify cases of food poisoning or suspected food poisoning occurring in their practice, and the first intimation received by the Department is usually per medium of the press.

In order to remedy this defect it is intended to insert in the amended Poisons Regulations a clause requiring every medical practitioner to forthwith report every such happening to the Commissioner and to furnish him with a complete history of each case and whatever samples of material may be required by the Commissioner for investigation purposes.

Of the food-poisoning outbreaks investigated during the year, the most extensive was one occurring in the Gympie district, where at two dance suppers a large number of guests partook of refreshments provided by members of the club responsible for the entertainments, and which consisted principally of sandwiches prepared from corned beef, ham, chicken, lettuce and egg, and sausage, and afterwards became ill.

Upon inquiry it was found possible to exclude all of the above, with the exception of the sandwiches prepared from chicken, which was ascertained had been made from a boiled fowl which had been minced and jellied and had afterwards been placed uncovered for a considerable period of time on an open veranda to "set."

Sandwiches prepared from this minced chicken were afterwards packed together into boxes covered with a damp cloth, and as the weather was warm and "muggy" at the time an ideal incubation temperature was evidently reached.

All of the individuals who partook of chicken sandwiches were attacked with violent sickness, but fortunately there were no fatal cases recorded.

The symptoms in each case were practically identical—sickness set in within eighteen hours; severe pains in head and stomach and base of neck; diarrhoea; vomiting in every case but one; stools green and slimy and showing blood.

From the facts ascertained one can only conclude that the consumption of the jellied chicken paste was the direct cause of the outbreak which was typical of food poisoning.

POISONS.

During the whole of the fiscal year careful supervision has been exercised by the Department's officers in the matters of the sale and keeping of scheduled poisons.

In such connection licensed dealers in poisons (wholesale and retail) pharmaceutical chemists, and storekeepers of every description have been visited from time to time, with the result that, with but few exceptions, the requirements of "The Poisons Regulations of 1924" have been found to be reasonably observed.

Special investigations were, during this period, undertaken under Regulation No. 21 (Dangerous Drugs), and relative thereto it is pleasing to record that with the exception of two instances those responsible for the handling and sale of dangerous poisons and potent drugs have satisfactorily discharged their responsibilities.

So far as the packing of poisons is concerned it is also gratifying to report that the dangerous practice of packing disinfectants and other poisonous substances in food containers of various descriptions has almost entirely ceased, whilst the misuse of cyanide of potassium and other poisonous cyanides is not so frequent now as formerly.

The issue of the British Pharmacopœia of 1932, and the need for the inclusion in the poisons law of this State of certain provisions recommended by the International Opium Convention of the League of Nations has necessitated revision and amendment of "The Poisons Regulations of 1924" in order to give legislative effect thereto and to enable Queensland to discharge its obligations thereunder.

This important work is well in hand and it is anticipated will be submitted to the Minister for approval in the near future.

TOOWOOMBA.

The officer in charge of the Department's sub-office at Toowoomba reports that during the year the local milk supply has been given continued vigilant supervision, resulting in a total number of 180 official samples of milk being submitted for analysis.

Of this total 167 samples were reported by the analyst as genuine milk complying with the prescribed standard, 10 samples were found to be deficient in fat content, and 3 samples adulterated with added water.

The usual procedure of instructing the vendors of the samples deficient in fat resulted in the required improvement being effected; legal proceedings were taken against the vendor of one of the samples adulterated with water, one was allowed to go free from prosecution on payment of incidental expenses owing to the fact that the default in such instance was attributable to another party, the third case is sub-judice.

Spiritous Liquors.—These were, in most instances, found to conform with the legal standards. The few cases of default were found to be proprietary packings of brandy which, although failing to satisfy requirements of the Queensland statutes, fulfilled those of the State in which they had been "put up." In view of these circumstances the local licensed victuallers were permitted to return their stocks of such line to their Southern suppliers.

Unsound Foods.—A total weight of 1 ton 7 cwt. 2 qr. 5½ lb. of deteriorated and unsound food material was rejected as unfit for human consumption and subsequently destroyed under official supervision.

Legal Proceedings.—Five persons were prosecuted for offences under the Health Acts and a conviction obtained in each case.

The offences included selling adulterated milk, selling shortweight bread, and one breach of the Poisons Regulations.

Penalties recovered amounted to:—Fines £21 and Costs £5 11s. 6d.

Poisons.—The usual strict attention was accorded to duties under "The Poisons Regulations of 1924," and a faithful compliance noted to be the rule at the different premises visited.

Mileage Travelled.—During the course of his inspections this officer travelled 1,246 miles by train and 204 miles by motor car beyond the area of the City of Toowoomba.

Towns Visited.—The following towns were visited, viz.:—Milmerran, Brookstead, Pittsworth, Southbrook, Cooyar, Wutul, Peranga, Kulpi, Acland, Dalby, Bowenville, Jondaryan, Oakey, Dirranbandi, St. George, Nindi Gully, Thallon, Talwood, Toobeah, Goondiwindi, Yelarbon, Inglewood, Texas, Warwick, and Stanthorpe.

Default Notices.—Seventy-seven notices under this section were served by our officer for the correction of defects observed in the course of his inspections.

ROCKHAMPTON.

The officer in charge of Rockhampton sub-office reports that the usual routine duties relating to the inspection of food-manufacturing and food-handling premises have been carefully carried out by him during the year.

Milk Supply.—This branch of the Department's duties has also received attention, and a total of 51 official samples of milk were collected and submitted by him to the Analyst.

Of this number, 6 samples were reported to contain below the minimum proportion of fat prescribed, and 4 samples to be adulterated with added water.

Legal proceedings were instituted against three of the vendors of these samples and a conviction obtained in each instance, whilst in the fourth case the vendor was called upon to furnish an explanation. The respective fines and costs inflicted were £14 7s., £11 7s., and £7 7s.

In addition to the above, one milk vendor was proceeded against for refusing to allow a sample to be taken, and was convicted and fined £3 15s. with 6s. costs, and for selling milk without the necessary license two vendors were each fined £1 with 6s. costs, and one vendor £3 with 6s. costs.

The total amount of fines and costs inflicted against milksellers was £43.

Liquor Inspection.—Hotel inspection and liquor testing received a fair share of attention during the period under review, both in the city and in the country towns visited.

Upon one occasion only was it found necessary to institute proceedings against a licensee for selling adulterated spirits, but the case in point has not yet been heard.

Two prosecutions for the sale of adulterated spirits which were taken early in the fiscal year were for offences committed in the year previous. A conviction was secured in each instance, and fines and costs totalling £27 8s. inflicted.

Bakehouses.—During the year bakehouses in the Rockhampton Inspector's area received the usual careful supervision. In such connection the only occurrence worthy of note is an outbreak of "rope" disease of bread which occurred in one of the leading bakehouses towards the end of summer. The infection, which was first observed in malt loaves, afterwards spread to the white bread.

Immediate steps were taken by the owner to utilise other premises in which to carry on business during such time as the whole of the original premises—together with utensils, fittings, and stocks were subjected to treatment under departmental supervision.

So serious was the position that, previous to cleansing and disinfecting operations being conducted, the bread was found to become badly infected forty-eight hours after coming out of the oven.

Baking was resumed after the premises had been treated for five days with various cleansers and fumigants, and the infection was still apparent, although not until the loaves were five days old.

Finally, however, the owner, upon the recommendation of the Department, engaged the services of a recognised bread expert who took personal charge of baking operations, with the result that after further prolonged treatment of the bakehouse, together with alteration of doughs, &c., the disease was eventually eradicated.

Bread-weighing was conducted in all bakehouses visited by the Rockhampton Inspector, with the result that during the period under consideration five bakers in his area were proceeded against for selling lightweight bread—the total amount of fines and costs inflicted being £27 8s.

Unsound Foods.—As the result of inspections 2 cwt. 3 qr. 27 lb. of deteriorated and unsound food material was removed from sale, as unfit for consumption, and destroyed.

Poisons.—Inspections under the Poisons Regulations were carried out in Rockhampton and in all country towns visited, and notices issued for minor breaches observed.

Chemists have received periodical visits for the purpose of checking their sales and prescription books, and no serious defects have been observed.

The case against a country chemist (referred to in last year's report) was proceeded with, and a conviction obtained. The fine imposed was £2 with 3s. 6d. costs.

Places Visited.—The following towns were visited during the year:—Anakie, Aramac, Barcaldine, Blackall, Blackwater, Bluff, Bogantungan, Clermont, Comet, Cracow, Dingo, Duaringa, Emerald, Jericho, Lawgi, Longreach, Mount Morgan, Rolleston, Rubyvale, Sapphire town, and Springsure.

Mileage Travelled.—In the course of his official tours the Rockhampton Inspector travelled 2,780 miles by rail and 692 miles by motor car.

MACKAY.

The officer in charge of Mackay sub-office reports that inspections under the Food and Drug Regulations have been continued upon routine lines, and that during the fiscal year food stocks have been found in good condition and properly labelled.

Storekeepers in Mackay, he states, have not been ordering goods in such large quantities as heretofore, with the result that articles do not remain upon the shelves for so long, and consequently are fresher.

Milk Supply.—Milk sampling has been carried out at infrequent intervals during the entire year, and the quality after analysis has been found to be very fair—no added water being detected. This result indicates considerable improvement over conditions obtaining here in previous years.

Two milk prosecutions, which were not completed when last annual report went to press, resulted in fines totalling £34 and costs £2 9s. being imposed.

Unsound Food.—A total quantity of 9 tons 3 cwt. 3 qr. 13 lb. of deteriorated and unsound food material was destroyed during the period under consideration as unfit for consumption.

Spirits.—Liquor testing at hotels in the town and country areas has disclosed that the respective licensees are selling good spirits.

Bakehouses.—Bakehouses have been found in good condition, and no deliberate shortweight in bread observed.

Poisons.—Requirements under the Poisons Regulations have been generally observed by traders, but a plumber's assistant was prosecuted for selling "spirits of salt" in a food container (lemonade bottle) and fined £2 and 6s. costs.

Towns Visited.—Fouldon, Baker's Creek, Homebush, Eton, Gargett, North Eton, Pinnacle, Mirani, Netherdale, Finch Hatton, Eungella, Pleystowe, Walkerston, Beaconsfield, Racecourse Mill, Dundula, Proserpine, Bowen, Collinsville, Merinda, Police Camp, Eimeo, Range, Retreat, Nebo, Glenella, Farleigh, Wundaroo, Leap, Kuttambul, Mount Pelion, Kolijo, Calen, Marian, Sarina, and Carmila.

TOWNSVILLE.

The officer in charge of Townsville sub-office reports that since taking over, inspections under "The Food and Drug Regulations" have been actively carried out.

Milk Supply.—Forty-one samples of milk were obtained and submitted to the Analyst, of which number thirty-three were up to standard, one deficient in total solids, and four samples adulterated.

Prosecutions in respect of the latter were pending at time of report.

Cafes and Fish Restaurants have received special attention and strict cleanliness enforced. Nineteen notices were issued for correction of defects observed.

Unsound Foods.—A total quantity of 10 cwt. 104 lb. of deteriorated and unsound food material was removed from sale and destroyed.

Included in this total is a consignment of celery from South Australia, which was found to be contaminated with copper compounds. Additionally fifty-four and a-half dozen cauliflowers and eleven dozen bottles of pickles were destroyed.

Poisons.—A number of firms were visited, verbal warnings being given when minor breaches of the regulations were observed.

All chemists have now provided separate registers in which to record transactions in the specially restricted drugs specified in Regulation 21.

Towns Visited.—Outside of the city of Townsville, visits of inspection have been paid to Characters Towers, Hughenden, Richmond, Julia Creek, Cloncurry, and Ingham.

CAIRNS.

The officer in charge of Cairns sub-office reports that during the year inspections under Part VI. of the Health Acts (pure food and drugs) have been regularly made in his area, and that a steady improvement in food-handling conditions has been observed by him.

Milk Supply.—Forty-nine samples of milk have been submitted, of which number thirty-five passed and fourteen samples failed. As the result of prosecutions, penalties amounting to fines £28 and costs £6 3s. were imposed by police magistrates. In addition, one milk seller at Cairns was fined £2 and £2 8s. costs for a breach of the Milk sellers' Regulations.

Unsound Foods.—A total quantity of 1 ton 1 cwt. 2 qr. 15 lb. of deteriorated and unsound food material was destroyed during the year as unfit for consumption.

Places Visited.—Outside of Cairns the following towns were visited during the period under review, viz.:—Mareeba, Babinda, Silkwood, Innisfail, Kureen, Mourilyan, Fishery Creek, Mirriwinni, South Johnstone, Garradunga, Tully, Feluga, El Arish, Kuranda, Kulara, Kairi, Peeramon, Tolga, Tarzali, Malanda, Yungaburra, Atherton, Ravenshoe, Herberton, Mount Garnet, Dimbulah, Port Douglas, Mossman, Thursday Island, Mungana, Chillagoe, Bibboohra, Croydon, Normanton, Georgetown, and Forsayth.

Mileage Travelled.—In the course of his tours of inspection the Cairns officer travelled 3,428 miles by rail, 375 miles by motor car, and 660 miles by boat.

Poisons.—Inspections under the Poisons Regulations reveal that with the exception of one area the regulations were being observed.

In the area referred to, the rapid growth of the tobacco-growing industry brought a number of new poison dealers into business, and certain of these traders have required special instruction in the matter of precautions and procedure necessary.

LAZARET, PEEL ISLAND.

During the previous twelve months the general health of the inmates may be regarded as satisfactory.

Among the admissions during 1932 was an aboriginal family consisting of five members who arrived from North Queensland, one of whom died after admission.

The majority of deaths occurred amongst the coloured inmates.

The various religious bodies continue to pay occasional visits to the Lazaret, when services are held in the church buildings. The inmate choir, consisting mostly of coloured patients, render very creditable church music, and this, together with the band practices, does much towards providing a pleasant occupation for the performers.

Sports, including cricket, tennis, fishing, &c., furnish healthy pastimes and relieve the monotony of segregation, whilst wireless installations go far towards entertaining the inmates and keeping them in touch with outside entertainments.

The following tables show the number of patients admitted, discharged, and deaths, as well as the number of those under treatment at the Lazaret on the 31st December, 1932:—

White Inmates.

1931.

Remaining 1st January..	..	..	30	
Admitted	..	..	9	
			—	39
Discharged	..	..	7	
Deaths	..	..	0	
			—	7
Total number, December, 1931	..			32

1932.

Remaining 1st January..	..	..	32	
Admitted	..	..	4	
			—	36
Discharged	..	..	3	
Deaths	..	..	2	
			—	5
Total number, December, 1932	..			31

Coloured Inmates.

1931.

Remaining 1st January..	..	..	24
Admitted	..	..	6
			— 30
Discharged	..	..	2
Deaths	..	..	4
			— 6
Total number, December, 1931	..		24

1932.

Remaining 1st January..	..	..	24
Admitted	..	..	12
			— 36
Discharged	..	..	2
Deaths	..	..	5
			— 7
Total number, December, 1932	..		29

Grand totals at Lazaret, 31st December, 1931, 56.

Grand totals at Lazaret, 31st December, 1932, 60.

LABORATORY OF MICROBIOLOGY.

The following are the particulars of the work carried out in the Microbiological Laboratory for the year ending 30th June, 1933:—

The year has been a very active one for the Laboratory Staff, and we have met all the demands made upon us to the satisfaction of all concerned.

The increased activity is most evident in the number of specimens received—61,036—being an increase of 11,117 on the figures for the previous year.

In the main the increase is made up of subsidiary increases from the following sources:—Health Department (Food Section), Hospital for the Insane, Goodna, and Brisbane City Council (Health Department).

The most notable increase is shown in the number of milks, ice creams, and frozen dainties for bacterial count, rodents for evidence of plague and leprosy, faeces for ova of *Anchylostoma*, and cultures for the presence of the diphtheria bacillus.

Specimens received required the exercise of every section of the laboratory work that was practised last year with the addition of essays into further laboratory practice.

In the preparation of cultures an increase in output is noticed, particularly in the number of Loeffler's serum media due to the demands of the Brisbane City Council.

The number of patients sent to the Laboratory for the taking of specimens represent a considerable increase, chiefly in swabs for Klebs Loeffler's bacilli.

In legal work evidence was given at an increased number of actions, which necessitated the presence of the Bacteriologist at the Police Courts of Brisbane, Dalby, Rosewood, and Charleville, and Supreme Courts at Brisbane, Toowoomba, Ipswich, and Charleville.

The following tabulated statement shows the source of the specimens received for examination by the Laboratory:—

Specimens from—	Medical Practitioners.	Hospitals.	Councils and Institutions.
Within the Brisbane area ..	99	5	14
Outside the Brisbane area..	97	40	68

Plague.—The number of rodents destroyed during the year shows an increase of 8,985 compared with last year.

Contrasting the first eight months period of each year the figures were practically similar—(1933) 14,205, (1932) 14,847, but contrasting the last four-month periods the figures were—(1933) 16,501, (1932) 6,874, thus over twice the number of rodents were destroyed during the period March to June, 1933, compared with the corresponding period of 1932.

Of the 25,322 received all were examined, but in none of the specimens was any evidence of Plague found.

Rats received were classified as follows:—

Rattus Rattus Norvegicus	..	..	17,444
Rattus Rattus Rattus	..	..	1,474
Rattus Rattus Alexandrinus	..	..	2,345
Hydromys Leucogaster	..	..	4
Unclassified (very young rats)	..	..	3,260
Mus Musculus	..	..	792

Fourteen (14) rats showed the presence of numerous acid fast bacilli (Rat Leprosy).

Smears from rats in Northern towns were submitted for examination, but in none of them was the plague bacillus present.

Diphtheria.—The total number of cultures submitted for examination for the year ending the 30th June, 1933, was 16,146, of these 17·2 per cent. contained the Klebs Loeffler's bacillus, whilst for the previous year the number examined totalled 11,065, of which 22·7 per cent. showed the bacillus.

The increase in the number of cultures received for diagnosis was due chiefly to those from the Brisbane City Council which did not submit specimens to the Laboratory last year.

Such a large number of diphtheria culture examinations could be greatly reduced if the precautionary measures against Diphtheria (viz., immunisation) advised and placed at the disposal of the public were availed of more generally by parents throughout the State.

Virulence tests performed during the year show a considerable increase, numbering 236 as against 26 for last year. The percentage virulent was 37·7.

Venereal Disease.—There was a decreased number of specimens submitted for examination. Of the Wassermann Reactions 1,075 were positive. This is 48·9 per cent., as compared with 32·8 per cent. last year.

Of the Gonorrhœal Complement Fixation tests made 135 were positive, or 28.9 per cent.

Of the number of smears examined for Gonococci, 949 were positive.

Of the specimens submitted for Spirochaeta Pallida, the number found positive was a percentage of 61.3.

Typhoid.—The number of blood specimens examined by the agglutination method for evidence of the presence of the typhoid and paratyphoid fevers was about the same as last year, and the number found positive—15.6 per cent.—was more than last year.

Tuberculosis.—There were 496 specimens submitted for examination for tubercle bacilli. The percentage showing the bacillus in sputum was 29.7 compared with 30.3 last year.

Leprosy.—The specimens of sera submitted for the bacillus lepræ numbered 724, as against 830 last year. The majority of these were from persons suffering from the disease—patients of the Lazaret.

Autogenous Vaccines.—The number of these vaccines prepared during the year was 79, compared with 73 last year. The amount of anti-typhoid (T.A.B.) vaccine supplied was 5,090 c.c.s.

Foods.—Of the milks, ice creams, and frozen dainties examined for bacterial count the figures are 1,015 for 1933, compared with 685 for 1932, an increase of 330.

Fæces.—Comparing the number of fæces specimens examined with those of last year, a decided increase is noticed. This was due to the Hospital for the Insane, Goodna, having specimens from the entire female inmates of the hospital examined with a view to ascertaining those infected with anchylostoma.

Miscellaneous.—The number of miscellaneous specimens, including water, oysters, flour, urines, fæces, &c., show an increase in some instances.

SPECIMENS RECEIVED IN THE LABORATORY DURING THE YEAR 1932-33.

Examination.	Health and Hospitals.	Private Practitioners.	Total.
Diphtheria—			
Cultures	13,204	2,942	16,146
Virulence tests	227	9	236
Direct smears .. ..	..	29	29
Gonorrhœa—			
Smears	7,134	636	7,770
Bloods	511	24	535
Syphilis—			
Wassermann reaction	1,647	550	2,197
Spirochaeta pallida	40	4	44
Typhoid—			
Widal reaction	26	38	64
Urines	43	6	49
Fæces	44	8	52
Tuberculosis—			
Sputa	158	155	313
Milks	183	..	183
Urine	4	..	4
Pleural fluid	1	1	1

SPECIMENS RECEIVED IN THE LABORATORY DURING THE YEAR 1932-33—continued.

Examination.	Health and Hospitals.	Private Practitioners.	Total.
Vaccines—			
Cultures	29	28	57
Urines .. ..	..	4	4
Sputa	1	8	9
Fæces	1	5	6
Pleural fluid .. ..	..	1	1
Pus .. ..	..	1	1
Urethral discharge .. ..	..	1	1
Organisms—			
Sputa	7	2	9
Cultures	2	3	5
Pleural fluid	1	1	2
Urine	6	8	14
Blood	5	1	6
Pus	1	..	1
Fæces	5	8	13
Smears	1	1	2
C.S. fluid	6	..	6
Fluid from knee	1	..	1
Urethral discharge .. ..	..	1	1
Milk	39	..	39
Earth	1	..	1
Examination—			
Milk (count)	729	..	729
Frozen dainties (count)	230	..	230
Ice (count)	1	..	1
Soda water	1	..	1
Waters	45	..	45
Ice cream (count)	56	..	56
Oysters	51	..	51
Meat	1	..	1
Bottles (sterility)	13	..	13
Filter wads	4	..	4
Bakery samples	47	..	47
Milk (blood)	8	..	8
Goat's milk	1	..	1
Ices	8	..	8
Bedding samples	12	..	12
Camp pie	2	..	2
Fly sprays	2	..	2
Handkerchiefs (seminal stains) .. ..	..	3	3
Urines (deposits)	2	1	3
Urines (albumen)	2	..	2
Urine (sugar)	2	..	2
Urine (sugar)	1	..	1
Urine (pus)	5	..	5
Disinfectants—			
Coefficiency	6	..	6
Examinations	1	..	1
Fæces—			
Ova	855	37	892
Dysentery	1	1	2
Blood .. ..	..	2	2
Filaria—			
Blood smears	1	6	7
Blood—			
Differential (count)	12	5	17
Full (count)	2	..	2
Basophilia	6	2	8
Anæmia	1	..	1
Bacillus abortus .. ..	..	2	2
Smears (leucocytes) .. ..	..	2	2
Leprosy—			
Human	636	68	724
Rat	14	..	14
Meningitis—			
C.S. fluid	2	..	2
Urea concentration—			
Urines	2	..	2
Vincent's Angina—			
Smears	1	2	3
Cultures	1	1	2

SPECIMENS RECEIVED IN THE LABORATORY DURING THE YEAR 1932-33— <i>continued</i> .				
Examination.		Health and Hospitals.	Private Prac- titioners.	Total.
Media Legal—				
Seminal stains	.. ..	8	..	8
Blood stains	.. ..	14	..	14
Identification—				
Insects	.. ..	2	..	2
Ringworm—				
Hairs	.. ..	6	2	8
Animal Inoculation—				
Virulence	.. ..	236	..	236
Milks (T.B.)	.. ..	48	..	48
Totals	.. ..	26,426	4,609	31,035

EXAMINATION OF RATS AND MICE FOR PLAGUE.			
Rodents received from—	Rats.	Mice.	Total.
Department of Public Health	419	3	422
Brisbane City Council	24,087	791	24,878
Miscellaneous sources	21	..	21

RODENTS DESTROYED (NOT EXAMINED).			
Rodents destroyed by—	Rats.	Mice.	Total.
Department of Public Health	1,792	16	1,808
Brisbane City Council	3,332	244	3,576

<i>Rat Smears Received During the Year.</i>				
Bundaberg	.. ..	..	..	937
Gympie	.. ..	..	..	826
Ipswich	.. ..	..	..	1,329
Mackay	.. ..	..	..	296
Maryborough	.. ..	..	..	1,292
				4,680
Grand total, 61,036.				
Requisitions supplied during the year, 767.				

Cultures and swabs supplied to the Commonwealth Laboratories were as follows:—				
Cairns	.. ..	..	..	3,312
Rockhampton	.. ..	..	..	2,730
Toowoomba	.. ..	..	..	2,592
Townsville	.. ..	..	..	4,320

CULTURE MEDIA PREPARED IN THE LABORATORY DURING THE YEAR 1932-33.			
Medium prepared.	No. of tubes, &c.	Total.	
Serum Cultures—			
Ox serum slopes	37,063	
Ox serum plates	30	
Human serum plates	170	
		37,263	
Ordinary Broth—			
Tubes	450	
Bottles	20	
Tubes for disinfectants	80	
		550	
Ordinary Agar—			
Small slopes	370	
Large slopes	102	
Large plates	1,440	
		1,912	

CULTURE MEDIA PREPARED IN THE LABORATORY DURING THE YEAR 1932-33— <i>continued</i> .			
Medium prepared.	No. of tubes, &c.	Total.	
Sugars (tubes)—			
Lactose	278	
Galactose	38	
Glycerine	112	
Laevulose	36	
Inulin	40	
Arabinose	38	
Sorbite	37	
Dulcite	37	
Starch	13	
Glucose	35	
Adonite	36	
Salacin	54	
Saccharose	54	
Amygdalin	35	
Raffinose	32	
		875	
Treble Lactose—Tubes	81	
Endo's Medium for B. Typhosus—			
Plates	376	
Endo's Medium for B. Coli—Plates	229	
Methyl Red Medium—Tubes	40	
Brilliant Green Enrichment Medium—			
Tubes	202	
Peptone Water—Tubes	52	
Glucose 2 per cent.—Tubes	47	
Lemco Broth—Litres	23	
Eosin-Methylene Blue Medium—			
Plates	15	
Litmus Milk—Tubes	45	
Grand total		41,710	

SANITARY INSPECTORS.

During the past twelve months an opportunity was afforded to some thirty candidates to sit for examination for the Royal Sanitary Institute Sanitary Inspector's certificate.

Out of this number eleven were successful in obtaining passes and thus obtained the parent Institute's diploma, which is recognised throughout the Empire, and entitled the holders to accept the position of Health Inspector with Local Authorities or other kindred bodies.

The filling of positions of sanitary inspector by competent qualified officers is most important, as they must of necessity obtain first-hand information respecting the existence of nuisances and insanitary conditions requiring immediate action being taken to suitably deal with the matter.

These officers are in close contact with the Medical Officers of Health for the areas, and are available at all times to investigate conditions associated with cases of infectious disease and to carry out disinfection of premises, clothing, &c.

In recognition of the assistance rendered by the Chairman (Dr. J. Coffey) and the State Health Officer (Dr. J. Grahame Drew), who are members of the Local Board of Examiners, in respect to the advancement of sanitation, the parent Institute has graciously bestowed on them the honour of the Institute's Fellowship.

The question of providing a students' course in sanitation has not been overlooked, but unless a minimum of thirty students are prepared to

attend lectures or take a postal course, the financial position in meeting expenses practically precludes the formation of a class for sanitary students. However, every possible facility is afforded students by allowing them to accompany Inspectors in making inspections on occasions when some interesting point in sanitation occurs, and by this means students gain a fair knowledge in practical sanitation, such as in the case of septic tanks, drainage works, and purification of trade wastes, &c.

TRANSFERS.

The officer in charge at Townsville, after many years' northern service, was transferred to Brisbane, and his successor was transferred from Headquarters' Staff, as he had not previously served the usual term outside the metropolitan area. The policy of the Department is to relieve officers after serving a term outside of Brisbane.

The Hookworm Campaign Nurses (4) were transferred from the Department of Public Instruction to this Department as from 1st July, 1932.

Nurse Vincent resigned her position as Nurse with the Hookworm Campaign, and Nurse A. R. Leeper was appointed in her stead.

Mr. W. C. Dale, Clerk in Head Office, was transferred to the Office of the Commissioner of Police, and Mr. E. J. Keogh, from the Police Department, was appointed to this office.

Four officers of the Department—viz., Messrs. M. McIntyre, A. W. Lowe, J. P. O'Shea, and C. J. Murray—qualified, by examination, for Associateship of the Royal Sanitary Institute, London.

REGULATIONS, &c.

The Diphtheria Regulations were amended in July, 1932, by removing the clause inserted in the previous year placing the responsibility of treatment and isolation of persons contracting diphtheria on the patient, parent, or guardian in cases where immunisation was made available and not accepted.

The responsibility taken over from the Local Authorities by the Government during the previous year of expenses incurred in the treatment of infectious disease patients reverted to the Local Authorities on 1st August, 1932, and the responsibility undertaken by the Government from 1st January, 1932, for the expenses incurred in the Diphtheria Immunisation Campaign ceased on 14th July, 1932, except in respect of those persons whose treatment had been commenced at that date but not completed.

Thursday Island Diphtheria Regulations reapplied for three years from 10th June, 1933.

The Typhoid Fever Regulations were re-gazetted in force until the 21st February, 1934.

HEALTH WEEK.

The Department organised and directed a very successful Health Week in Brisbane during the first week of April.

Educational displays were staged in an exhibition held in the City Hall by the following Departments:—Public Health, Agriculture and

Stock (Dairying, Entomological, and Pathological), Tourist Bureau, the City Health Department, Water and Sewerage Department, Baby Clinics, Creche and Kindergarten, Mothercraft, and Playgrounds Association.

Displays by manufacturers of foods and goods associated with health considerably enhanced the effect of the exhibition.

The large and continuous attendance of the public throughout the day and evening sessions, when a comprehensive programme of lectures and displays by athletic associations was given, clearly demonstrated the appreciation in which the exhibition was held, and did an amount of good in awakening a lively interest in the minds of the public in respect to Public Health activities.

Members of the medical profession displayed much interest in the undertaking, and interesting lectures touching on important matters on health and hygiene, and which were supported by lantern slides, went far in maintaining the popularity of the undertaking.

The press gave the movement its hearty support, which was the means of engendering a widespread interest on Public Health affairs throughout the whole State.

An interesting handbook was circulated containing hints on Health matters and Child Welfare. It also included useful cookery recipes and interesting notes on foods, &c.; 30,000 copies of this booklet were issued free and were distributed to all centres of the State.

On the Sunday preceding the opening of Health Week special addresses were delivered by ministers of religion in the various churches in the metropolitan area.

On Monday, the 3rd April, Health Week was opened officially by His Excellency the Governor, Sir Leslie Orme Wilson, and the Right Honourable the Lord Mayor, Alderman J. W. Greene, members of Parliament, members of the City Council, prominent members of the medical profession, and other public bodies were also present on the platform.

The following is an outline of the addresses given during the week:—

Monday—

"The Public Health," by a Brisbane physician.

"Household Pests," by Mr. Weddell, Assistant Entomologist, Department of Agriculture and Stock.

Lunch hour address at the Rotary Club, by a Brisbane psychiatrist.

Tuesday—

Domestic Science Address—"A Square Meal," by Mrs. Brydon, late Inspector of Women's Work, Department of Public Instruction, followed by a Cookery Demonstration—"A Simple Dinner."

"Healthy Mothers and Healthy Children" and "The Infant of the First Year," by Dr. Phyllis Cilento.

"Dental Hygiene," by Dr. Livingstone, Principal of the Dental College.

"Social Diseases," by Dr. Hayes, Director of the Venereal Clinic, Department of Public Health.

Wednesday—

Domestic Science Address—"Equipment—Choice and Care," followed by a Cookery Demonstration—"Afternoon Tea."

"Creche and Kindergarten," by a Brisbane lady doctor.

"Mental Hygiene," by a Brisbane psychiatrist.

"Conversion of Dwelling-houses into Flats," by Mr. J. C. Cavanagh, F.R.A.I.A.

Thursday—

Domestic Science Address—"Household Supplies," by Mrs. Brydon, followed by a Cookery Demonstration—"Picnic Lunch."

"Health of the School Child," by Dr. St. Vincent Welch, Chief Medical Officer, Department of Public Instruction.

"Food and Chemistry," by Mr. J. B. Henderson, F.I.S., Government Analyst.

"Epidemic Diseases," by Dr. J. Grahame Drew, State Health Officer, Department of Public Health.

Friday—

Domestic Science Address—"Fish," by Mrs. Brydon, followed by Cookery Demonstration—"A Fish Meal."

"The Difficult Child," by Miss Meta Maclean, Principal of Ascot Kindergarten School.

"Milk," by a Brisbane physician.

"Climate and Health," by Dr. R. W. Cilento, Chief Quarantine Officer (General).

Lunch hour address—"Infectious Diseases," by a Brisbane medical practitioner.

Saturday—

Domestic Science Address—"Turtle," by Mrs. Brydon, followed by a Cookery demonstration, "An Invalid's Tray."

"Infant Diet," by Dr. A. J. Turner, Director of Child Welfare.

It is gratifying to note that the lectures were attended by persons who evinced a great interest in Public Health activities.

ADMINISTRATION.

During the year under review every effort has been made to preserve the health of the community, and it is pleasing to report that no untoward incidence of infectious disease has occurred in the State, and for which no small meed of praise is due to Local Authorities in having given closer attention to health requirements throughout their respective areas.

The matter of securing safe food supplies has been facilitated by the ever-ready assistance afforded by the Government Analyst and staff, and for which I desire to express my appreciation. In regard to prosecutions of offenders in connection with milk adulteration, as well as the sophistication of foodstuffs, &c. I am much indebted to the Crown Law Department for the valuable assistance rendered in such cases.

The hearty co-operation displayed by the police officers has, as usual, proved invaluable in tracing the whereabouts of individuals, and also making general inquiries required in connection with the provisions of the Health Acts, and to whom I desire to express my thanks.

During the year this Department's rat gang was transferred to the Brisbane City Council, together with the work of attending to deratisation in respect to Government buildings, meat-works, wharves, &c., which formerly was attended to by this Department.

JOHN COFFEY, F.R.C.S., D.P.H.,

Commissioner of Public Health.

Appendix A.

GOVERNMENT CHEMICAL LABORATORY.

The Commissioner of Public Health,
Brisbane.

SIR,—I have the honour in accordance with section 31 of “*The Health Acts, 1900 to 1931*,” to submit the following report of work done in the Government Chemical Laboratory for the Department of Public Health during the year 1932-1933:—

The number of samples examined was 4,728, an increase of 1,297 samples on the record number done last year.

TABLE I.

Nature of Sample.								Number of Samples.	Passed.	Failed.
Beverages and cordials	..	..	..	..	..	..	..	107	67	40
Fish (tinned)	..	..	..	..	..	..	..	9	1	8
Fruit and fruit juices	..	..	..	..	..	..	..	9	7	2
Jam and jelly crystals	..	..	..	..	..	..	..	42	17	25
Meat and vegetables	..	..	..	..	..	..	..	37	19	18
Milk (fresh)	..	..	..	..	..	..	..	2,327	1,773	554
Soap	..	..	..	..	..	..	..	12	10	2
Spirituuous liquors	..	..	..	..	..	..	..	41	24	17
								2,584	1,918	666
Disinfectants	..	..	..	..	..	..	..	38	..	..
Drugs and medicines	..	..	..	..	..	..	..	65	..	..
Dyes	..	..	..	..	..	..	..	8	..	..
Toilet preparations	..	..	..	..	..	..	..	16	..	..
Water and sewage	..	..	..	..	..	..	..	42	..	..
Tobacco	..	..	..	..	..	..	..	1,462	..	..
Miscellaneous	..	..	..	..	..	..	..	513	..	..
								4,728		

Of the total number of samples submitted, 2,185 were legal samples taken by inspectors in accordance with the provisions of the Health Acts. The results are shown in Table II.

TABLE II.

Nature of Sample.								Number of Samples.	Passed.	Failed.
Milk	..	..	..	..	..	..	..	2,146	1,649	486 (+11 sour)
Paint scrapings	..	..	..	..	..	..	..	5	..	5
Spirituuous liquors	..	..	..	..	..	..	..	11	1	10
Summer beverages	..	..	..	..	..	..	..	9	..	9
Miscellaneous	..	..	..	..	..	..	..	14	9	5
								2,185	1,659	515

The comparatively high proportion of failures in the case of most of the foods, other than milk, is due to the fact that these samples have been taken by the inspectors as being of doubtful or definite low quality. For example, the spiritous liquors which were sent in had nearly all been tested for strength with a hydrometer by the inspectors, and only those close to or below the standard were legally taken and sent in for analysis. As a result of the eleven legal samples of liquor submitted, ten failed to reach the standard for strength; none had deleterious additions. Similarly with soft drinks, those which had previously been found to have been falsely described on the labels were legally taken and submitted for analysis, and all proved short of fruit juice.

The high proportion of failures in such cases is therefore no indication that that proportion of these foods on the market is misleadingly labelled and adulterated.

It is otherwise with milk. The sampling is promiscuous, taken as widely as possible, and from the larger numbers now analysed must be a fair indication of the state of the milk supply.

The following table records details in regard to the 2,146 samples of milk:—

TABLE III.

Place.					Number of Samples.	Passed the Standard.	Genuine but below the Standard.	Deficient in Fat.	Adulterated with Water.	Average Percentage of Added Water.	Sour.
Brisbane	..	..	..	..	1,431	1,092	208	68	62	5	1
Bowen	..	..	..	..	13	3	2	6	..	..	2
Bundaberg	..	..	..	..	17	8	1	3	5	27	..
Cairns	..	..	..	..	39	29	3	3	4	5	..
Coolangatta	..	..	..	..	17	11	2	2	1	4	1
Dalby	..	..	..	..	10	10	..	..	..	..	..
Gatton	..	..	..	..	3	2	..	..	1	3	..
Gympie	..	..	..	..	15	14	..	..	1	11	..
Ingham	..	..	..	..	9	7	..	..	2	12	..
Innisfail	..	..	..	..	7	3	..	2	2	10	..
Ipswich	..	..	..	..	96	85	4	..	7	7	..
Mackay	..	..	..	..	49	48	1	..	..	..	..
Manly and Wynnum	..	..	..	..	45	36	8	..	1	4	..
Mareeba	..	..	..	..	3	3	..	..	..	..	..
Maryborough	..	..	..	..	35	25	3	3	4	5	..
Proserpine	..	..	..	..	7	4	2	..	1	6	..
Redcliffe	..	..	..	..	18	7	8	1	..	..	2
Rockhampton	..	..	..	..	41	23	5	3	5	6	5
Sandgate	..	..	..	..	49	26	19	4	..	..	..
Sarina	..	..	..	..	4	4	..	..	..	..	..
Southport	..	..	..	..	13	10	..	3	..	..	..
Stanthorpe	..	..	..	..	5	3	1	1	..	..	..
Toowoomba	..	..	..	..	149	138	1	7	3	5	..
Townsville	..	..	..	..	46	33	4	2	7	9	..
Warwick	..	..	..	..	15	15	..	..	..	..	..
Yeppoon	..	..	..	..	10	10	..	..	..	..	..
					2,146	1,649	272	108	106	7	11

A summary of these results shows that 4.9 per cent. of the samples were adulterated with water, 5 per cent. were deficient in fat, 12.7 per cent. were genuine but below the standard, while 76.9 per cent. passed the standard.

The following table shows the milk position as compared with the four previous years:—

TABLE IV.

Year.					Number of Legal Samples.	Percentage Deficient in Fat.	Percentage Watered.	Average Percentage of Added Water.
1928-29	..	..	..	..	715	8.8	11.9	11
1929-30	..	..	..	..	1,414	6.4	5.5	9
1930-31	..	..	..	..	1,638	8.7	2.5	8
1931-32	..	..	..	..	1,865	7.8	4.1	10
1932-33	..	..	..	..	2,146	5.0	4.9	7

While the reductase tests show that on the whole the milk supply is fairly clean from the bacterial standpoint, there are still a few suppliers whose milk shows a bacterial contamination that is a reflection on the cleanliness of their methods.

Twenty samples of fruit drinks were deficient in the minimum proportion (5 per cent.) of fruit juice required to be present. In a fruit-producing country like this there is no reason why this comparatively low standard for fruit juice should not be reached. Of thirty-five samples of soda water examined, eighteen contained more than one-hundredth of a grain of lead per gallon, showing that there is still need for close supervision of this article.

Twenty-five samples of jelly crystals were falsely described as containing fruit juices, whereas they were only flavoured with essences.

Five consignments of cabbage to the Brisbane market contained lead arsenate in quantity.

Three consignments of celery from another State contained copper compounds in quantity.

Of 141 samples of paint scrapings taken from the veranda rails or other parts of houses where children inmates were suffering from lead poisoning, ninety-three samples contained more than 5 per cent. soluble lead. In a number of cases the painter had guaranteed pure zinc paint and used white lead paint.

The standard which permits of 5 per cent. soluble lead in zinc white paint was first used in England many years ago. The commercial zinc whites on the market were at that time manufactured from the ores by processes which resulted in about 5 per cent. of lead being left in the zinc oxide. Zinc oxide (zinc white) is now produced by processes which give a commercial product containing about 98 per cent. of zinc and very little lead. Zinc white paints now on the market rarely contain as much as 2 per cent. soluble lead.

Noting these facts and considering the proportion of lead poisoning showing in our community, especially among children, the advisability of reducing the permitted proportion of soluble lead in paint from 5 per cent. to 2 per cent. might be considered.

Two hundred samples of urine were examined for lead in connection with suspected cases of lead poisoning principally among children.

The miscellaneous samples included paint (15), hair (17), bedding (12), icy poles (9), household ammonia, aluminium measures, hydrometers, soups, insect destroyers, sheep dip, camphor, eyelash preparations, solder, oyster wash, vacuum flasks, stump cap, and walnuts.

Yours faithfully,

J. B. HENDERSON,

Government Analyst.

Price 1s. 9d.

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